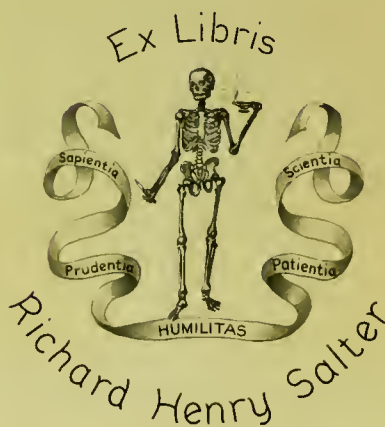


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A

PRACTICAL TREATISE

ON THE

FORMS, CAUSES, SANABILITY,
AND TREATMENT

OF

PULMONARY CONSUMPTION.

BY

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TO

JOHN ABERCROMBIE, M. D.

FIRST PHYSICIAN TO THE KING FOR SCOTLAND;

AND TO

WILLIAM PULTENEY ALISON, M. D.

[PROFESSOR OF THE INSTITUTES OF MEDICINE

IN THE UNIVERSITY OF EDINBURGH,

IN ADMIRATION OF THEIR CHARACTERS & WRITINGS

AND IN GRATITUDE FOR PERSONAL BENEFITS,

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CORRIGENDA.

Insert at page 118, before case XLI. VARY. B—WITH
HÆMOPTYSIS.

For stetoscope *read* stethoscope—*passim*.



PRÉFACE.

THERE are two methods of writing on a scientific subject, the one *inductive*, the other *eclectic*. In the former no regard is had to the experience and opinions of others; natural phenomena are collected from personal observation, arranged, connected, and reasoned on. In the other method one's own observations and opinions are compared with those of other men; and by analytic criticism the results of both are corrected or established. In the first mode there is scope for the display of *knowledge*,—and in the second of *learning*. The eclectic mode of study cannot be usefully pursued except the mind of the inquirer is possessed of some definite facts and opinions, with which he may collate, and by which he may interpret, those of others.

Most writers in the present day pursue the former method to the exclusion of the latter; whence it happens that imperfect and partial results only are obtained,—

In the present Treatise, I have endeavoured to combine both these modes of inquiry.—‘Ainsi le meilleur medecin ne’st pas (comme le prejugé le suppose) celui qui en aveugle et en courant accumule beaucoup de pratique ; mais celui qui ne fait que des observations bien approfondies, et qui joint a ces observations le nombre le beaucoup plus grand des observations faites, dans tous les siecles, par des hommes animés du meme esprit que lui : ces observations sont le *veritable experience* du medecin.’—D’Alembert.

‘Much has, confessedly, been thought, said, and written on the morbid changes which the lungs undergo in Consumption ; and it has been supposed that ‘nothing new can deserve attention.’—In the judgment of the writer, however, there is wanting much precision in the practical arrangement of the several species and varieties of phthisis, as they are characterised by distinct groups of symptoms, and related to particular forms in the morbid appearances : whence, as is naturally consequent, little discrimination, or authority, at present exists in the treatment of this most important malady.

A cursory acquaintance with the nature and present state of medical science will demonstrate that farther observation, arrangement and reasonings are requisite, both in Medicine in general, and in Pulmonary Consumption in particular.

In the narration of the Cases contained in the present

volume, I have set down the minutest circumstances in the rise and progress of the symptoms, wherever such could be ascertained, with the antecedent and concomitant causes.—For it is important to remark the fine shades of diversity which a single genus of disease will exhibit in different subjects:—The use of analogy in practical medicine is thus rendered less limited and uncertain; genuine experience being as Galen has well defined it,—‘*observatio et memoria ejus quod sæpe et eodum modo visum est.*’

The authority of M. Louis, whose work *Sur la Phthisie*, Paris—1825, is a most important supplement to Laennec’s, may be adduced to show that authentic memorials of original cases of pulmonary consumption are by no means superfluous:—‘*on ne saurait trop le redire, la science peche par les bases; les faits bien et completement observes lui manquent sur les plus grand nombre de points.*’ And the most recent work of authority on this subject from the British press,—the ‘*Illustrations of the Stethoscope*,’ by Dr. Forbes, contains very few examples of some of the most important forms of Consumption.

Many interesting cases and observations have for years been accumulating, and suffered to lie hid, in the various periodicals of this country. An interesting supplement to the *Literary history of Consumption*, by Dr. T. Young, in 1815, might be formed by the selec-

tion, collation, and abridgement of those narratives from that time to the present.

As the want of an early and continuous history seriously impairs the value of medical facts and observations, it is presumed that the original cases in this volume will be held to be important from the connected reports I have been enabled to give of their phenomena, from their rise to their termination.

At the same time that I have deemed it requisite to describe the cases circumstantially, I have not been unmindful of the admonition of Haller, (opusc. patholog.)—‘sincere et simpliciter enarrare quæ vidi, et breviter; vereor enim ne parum ii scriptores legantur qui nimia abundantia *exiguorum accidentium* historias suas producunt, et lecturis tædium movent.’

It has, moreover, been my endeavour not to be led from indolence, or credulity, to avail myself of the mere *rumors* or whispers, of experience as the groundwork, or in confirmation, of my philosophy,—ascribing to them the same authority as if they rested on legitimate testimony.’—Bacon.

I have sought, according to the admirable canons of Baglivi, by a careful analysis of the cases, to reject what is false, guard with caution what is doubtful, in constant or common to other things that resemble it :—‘Post enim rejectionem, ac exclusionem, debitis modis factam, secundo loco, tamque in fundo, manebit, ab-

euntibus in fumum opinionibus volatilibus, *forma affirmativa solida et vera.*' Bacon. Nov. organ. II. xv.

There are many elegant and copious compositions of the characters of Consumptive diseases by various authors, which are defective in practical results from the omission of Clinical illustrations, or from the abstract nature of the descriptions, in which insulated symptoms are enumerated,—while their physiological relations are unobserved, and no exact criticism is brought to bear on the phenomena.

I have therefore attached to my narratives such pathological deductions as they seemed to warrant. Wherever I have employed the principles thus educed to confute, or confirm, those of other observers, I hope that it has been done in the spirit of candid criticism, without dogmatism or arrogance. To them who may be disposed to cast my facts and opinions into the crucible of their criticism, I beg to quote the well known lines of Horace,—

‘Si quod nosti rectius istis,

‘*Candidus* imperti; si non, his *utere* mecum—

‘Visne rationes ipsas invicem collidamus?—Forsitan Ex hujus modi conflictatione pulchra quædam *veritatis* scintilla dissiliet!—Boethius.

If this Treatise shall be felt to be tedious from the extension, or repetition, of its materials, my apology is,—that, in order to form sound principles in the patho-

logy and cure of diseases, it is absolutely necessary that the induction of cases, similar in their symptoms, origin, and results, should be made as cumulative, and combined as possible. However illustrious may be the eulogy on Aretæus,—*a se pleraque depromens alienis vestigiis minime institerit*—such a character of study, or composition, does not exhibit the proper method of advancing the science of Medicine.

Many of the *false facts* which, as Dr. Cullen remarked, are a disgrace to the annals of medicine, have sprung, it is to be hoped, more from the partial experience, than from the bad faith or imperfect capacity, of the reporters. There is yet, unhappily on the records of modern medicine an abundance of contradictory testimony; nevertheless that testimony is vaunted to be dictated by Experience!—*Il est difficile de s'entendre en medicine si l'on n'attache un sens precis au mot experience; puis chacun vante les resultats de la sienne propre et cite plus ou moins de faits en sa faveur.*—Pinel.

At the same time that I have been sedulous in comparing my own observations with those of former authors, I have not yielded a blind veneration to mere authority however ancient. For the spirit of genuine philosophy is, as Dr. Friend beautifully portrayed it, neither arrogantly to spurn the opinions of others, nor with superstitious regard servilely to follow them; but

to respect authority only so far as it is founded on reason:—‘Cujus (Galenī scil.) sanē sententiā utī sæpius data opera aspernari et respuere, hominis esset valde arrogantis; ita in omnibus sequi velle superstitiosa est. Neque enim *Authores* in medicina faciēda, sed *rationis momenta* quærenda sūnt.’

Next in importance to the acquisition of accurate Facts regarding a disease is the practical and scientific arrangement of the cases, under the several species and varieties to which they belong.

Much confusion exists among physicians, both English and foreign, on the classification and designation of the various forms of Pulmonary Consumption:—Some writers having adopted the *nosological* method, which is founded on the external signs, and exciting causes, of a disease; others the mis-termed *pathological*, but which would be more truly denominated the morbid-anatomical, mode; while a third class have indiscriminately employed and confounded both these methods.

The multifarious divisions and epithets which have been assigned to the several species of Consumption sufficiently display the utter want of unity in the principles of arrangement by which this subject has been disfigured.

There are e. g. three kinds mentioned by Hippocrates, which may be termed, the catarrhal, the remittent-asthmatic, and the secondary-dropsical. Galen has the catarrhal, 'the lung being affected from disease in other parts, and the hæmoptoic-pulmonic. Sydenham has distinguished four varieties, 1:—the winter cough; 2:—the hæmoptoic; 3:—the suppurant; and 4:—the secondary-catarrhal. Dr. Home has the asthmatic,—and ulcerous. Dr. Cullen has two species, the incipient,—and the confirmed. Drs. Fothergill, Abercrombie, and Hastings, have distinguished the spurious and genuine orders. Dr. Wilson Philip has described the 'phthisis humida et sicca.' There are also the *acute, latent, mucous, exanthematic, rheumatic, arthritic, dyspeptic, chlorotic, icteric, hepatic, scorbutic, syphilitic, idiopathic, symptomatic, constitutional, local, tracheal, laryngeal, cellular, &c. &c. &c. of Morton, de Haen, Sauvages, Roberts, Cayol, Louis, &c.*

Dr. Rush, regarding only the external aspects of Consumption, remarked three states, distinguished by the pulse, which are sometimes combined in a single case, but not in a regular order of succession; first, the *Inflammatory*; second, the *Hectic*; third, the *Typhous*. Portal has distinguished three species; 1, the Scrofulous, or constitutional, 2, the Plethoric; and 3rd, the Multiform, which is a local disorder, from peripneumony, measles, syphilis, and gout. Dr. Duncan has

1st, the Catarrhal; 2nd, the Apostematous; and 3rd, the Tuberculous species. M. Bayle on the assumption that every disorganizing ulcerous fatal pulmonary affection is consumptive, has formed six species; 1, the Tuberculous; 2, the Granular; 3, the Ulcerous; 4, the Melanotic; 5, the Cancerous; and 6, the Calculous. On the other hand, the more recent French writers, with singular simplicity, in opposition to all precedent and observation, arbitrarily contend for only one kind of *genuine* consumption, the Tuberculous.—‘Ulceration cancer, melanosis, and calculi,’ says M. Louis, ‘do not come under proper phthisis.’

This contrariety may in great part be referred to misapprehension of the distinction of Nosology and Pathology. These departments of Medicine simply designate the several aspects in which diseases are to be contemplated; they are harmonious and complementary of one the other. In the classification of diseases both may be adopted,—instead of being separated, confounded, or placed in opposition.

It admits not of dispute that it is ‘vain to form nosological arrangements from the grouping of *symptoms* without reference to the organic changes.’ And eminent authors, e. g. Dr. T. Young, and Dr. Duncan, have erred in maintaining that the ‘genera and species of diseases should be founded on their external signs, and not in reference to the state of the diseased organ,’—or

‘that the species of phthisis are to be formed as they are distinguished by a different set of symptoms, and require a different mode of cure; for that the distinction which is drawn from morbid anatomy, which can only be known after death, serves only to puzzle.’

In correction of this it may be observed that the anatomical characters proper to each form or set of symptoms should be ascertained, and their pathological relations illustrated; although it would truly be vain, for practical purposes, to found the distinction of diseases on the varieties in the *organic lesion, when these are not characterised by distinct classes of external signs.*

A Classification, according to the several component textures of individual organs enumerated in systems of General Anatomy, however fascinating it may appear from its simplicity and originality, is not consistent with the principles of Pathology which are derived from a physiological explanation of morbid actions. For it is obvious to any one conversant in the inspection of morbid bodies that the actions of disease, however they may *originate* in some one texture, are not, when long continued, confined to it.

A particular form of organic lesion, such as ulceration, induration, or tuberculation, when seated in parts which are anatomically distinct:—e. g. the Larynx, Trachea, or Lungs—may be regarded as constituting a nosological variety in the generic disease, inasmuch

as such a diversity of seat will occasion a cognisable variety in the symptoms ; and this is a proper base of nosological distinction. But this does not necessarily involve an essential diversity in the *pathological nature of the species*.

There are several modes of morbid action, affecting either one texture or various textures, which are essentially different in their nature and cure. The difference of their essence must be determined from the several kinds of the morbid appearances, taken in connection with the diversity observable in the symptoms, the character of the constitution, and the nature of the exciting causes.

Moreover, the diversities of morbid structure in an organ affected by a single genus of disease are so multifarious, that to enumerate its forms from these diversities *taken by themselves* would be to introduce endless and indiscriminate divisions: ‘one tubercle is scirrhus, another pulpy, a third cream-like, a fourth presents its original hydatidical character;—all these coalesce,’ &c.—Dr. Baron. The causative morbid actions may be of the same nature under the concurrence of several species of organic lesions ; ‘they differ in form, not in kind.’

If any particular lesion were invariably connected with a distinct set of symptoms, it would practically constitute a distinct form of disease. But in Consump-

tion there is no single morbid condition of the Lungs which is characteristic of its several species, and the cause of their essential difference: the tuberculous and the ulcerous species are not in all cases different in their pathological nature; nor are all tubercles or ulcers identical. The symptoms *alone*, on the other hand, cannot be made the ground-work of pathological distinction, for under similar symptoms we find several organic lesions, various in appearance, but similar in kind.—For example, the scrofulous-suppurative-catarrhal, inflammation in the Bronchial membrane may simulate the scrofulous tuberculation or ulceration in the Lungs beyond our powers of discrimination during life. But these forms of morbid action are, as I have shown in chapter II, identical in essence, and require a similar method of cure: the discrimination of them is then only of practical consequence as it regards the prognosis of the case,—one condition admitting of recovery, while the other is insurable. The forms of pulmonary disorganisation which are pathologically different, will be found to exhibit a cognisable diversity in the combination or succession of the symptoms; although that diversity may escape the perspicacity of careless observers.

The species of phthisis enumerated by M. Bayle, and other French authors on the anatomical principle, impressively show how different is mere *morbid anatomy*

from *Pathology*. It is, I repeat, the different kinds of morbid action—as inflammation, ulceration, tuberculation, and the relation of these to distinct groups of external characters, which practical pathology contemplates. The morbid appearances themselves are merely the materials which the reasoning mind of the pathologist employs.

As then we cannot always before death recognise the exact condition of the several textures in an organ while medical diagnosis is in its present imperfect state, and as similar morbid appearances in various textures, and various appearances in the same texture, may be in their pathological nature identical or diverse, the practical study of medicine requires us to collect the cases which are similar in their rise, progress, and symptoms, to ascertain the different forms in the proximate morbid phenomena with which the external characters are connected ; and then from the invariable relation of the symptoms with the modes of disorganisation, we shall derive a truly pathological and practical arrangement of diseases.

The Forms of Consumption which are distinguished in the present volume, will be seen to exemplify such a classification, each form being characterised by a cognizable variety in the symptoms and the morbid appearances, which are presumed to be related to one the other in the mode of cause and effect ; and the elucidation

tion of these forms will, it is hoped, serve to reconcile much of the conflicting testimony among different authors, regarding the nature and cure of this interesting malady. *

It is presumed, that it will appear to have been useful to refer to the several species herein exhibited, the multifarious descriptions in Medical writings; and thus by the force of concurrent and analogous testimonies to establish the distinctive character of each form.—Those miscellaneous observations I have endeavoured by extensive research, and careful but not over-refined

* It appears to me absurd in a practical system to separate from Consumption, as many estimable authors have done, fatal cases of organic disease in the abdominal viscera with cough and purulent sputa. It is more natural to place them as a symptomatic order under this genus, as Dr. Cullen and the elder Nosologists have done; for they may be made the subject of useful collation with idiopathic pulmonary phthisis. It is still more in violation of methodical nosology and practical utility to separate from genuine phthisis a case of cough, purulent sputa, hectic, and diarrhœa, arising from ulceration in the Larynx, the Lungs not being disorganised. It should not be termed a chronic inflammatory affection, and be placed in the class ‘*phlegmasiæ*’;—for inflammation has long ago disappeared, and the state of the system is become truly cachectic or phthisical. If the object of arrangement is to bring together phenomena which have an affinity in their nature, origin, and remedies, in order that by comparison their relations may be truly ascertained, a classification which is founded on morbid anatomy alone is not practical, neither it is strictly *pathological*.

analysis, to arrange and combine in their proper order; and thereby to reconcile the apparent discrepancies of medical testimony. There is here presented to the Reader a mass of condensed and connected observations on Pulmonary Consumption, which may serve to establish more precision in the pathology, and more certainty in the treatment of this disease.

The Literary history herein set forth will be interesting to them who like to observe the progress of the human mind in a particular department of science.

The inquiry may serve to lessen that reverence which is too easily entertained for great Names, and long established Dogmas. It will also show that the reading of Authors in Medicine is more apt to lead one astray from the truth into a maze of confused opinions, without some clear and precise notions previously derived from an intelligent observation of natural phenomena:—Observation and Experiment are as necessary for the fruitful study of Medicine, as sound faculties are for the successful pursuit of Learning: but reading must be added to personal observation, as well as learning to good natural parts.

I have thought it important to make researches in the elder English writers, because the French school of pathology has of late years absorbed the attention of students, not altogether to the advantage of practical medicine. Such living Authors as are herein quoted

will pardon me for having condensed and re-published the cases and observations which are scattered throughout our Periodicals, where they are often buried and forgotten.

The complication of diseases in other organs, particularly the Stomach, Intestines and Liver, and its influence on the progress, curableness and treatment of Consumption, has been little regarded by British authors. Copious illustrations of this important subject are given from M. Louis.

It is only necessary to remark farther that the name of a species should not be taken from an accidental character in its symptoms or progress, but from its essential external and internal form. The '*Latent phthisis*' of French authors is a solecism in nomenclature; phthisis being an observed condition of the system. There may be latent tubercles; but these do not constitute a case actually consumptive.

From the Facts collected, and arranged according to the foregoing remarks, I have endeavoured, by strict philosophic reasoning, to deduce and establish Pathological and practical Principles: remembering that a collection of observations is 'like a storehouse in which a man is not to stay with pleasure, but to step down now and then, when he wants any thing either for the con-

struction of axioms, or the cure of disease; thought and apprehension should, like a divine fire, enlighten this obscure desert of particulars, and edify aphorisms.'—Baglivi.

'There is a want,' says Dr. Alison, 'not so much of facts in pathology, as of principles, by which these facts ought to be connected, and by which the useful application of them may be best secured.'

'There is a certain analogy, constancy and uniformity, in the phenomena of nature which is a foundation for *general rules*; and these are a *grammar* for the understanding of nature, whereby we are enabled to see what will come to pass in the course of things. The appearances of nature are alike visible to all, but all have not alike learned the *constitution of natural signs*, or know how to *vaticinate* by them. Experience is an oracle, to how many inquirers dumb!'—Berkeley.

There is, unhappily, a Class in the profession of Medicine, whom an Edinburgh Reviewer has, with much reason, reproached—as having acquired skill in business, and laid up great stores of information; but who have never *systematized* their knowledge: they hate abstract reasoning—the very name of Theory is terrible to them; they seem to think that the use of experience is, not to lead men to the knowledge of general principles, but to prevent them from ever thinking about general princi-

ples at all.—They may play at bo-peep with truth ; but they never get a full view of it in all its proportions.

Others, again there are who extol in word the ‘ Philosophy of medicine’ and neglect it in practice. We must go back to the Morgagnis and Heberdens, and Gregories of other days for an exemplification of sound philosophic criticism in medicine. The prefaces and commentaries of the venerable Father of Pathology in Italy, exhibit fine specimens of reasoning and observation, such as are rarely seen in modern works.

While, however, there are writers who do not merit the censure conveyed in the foregoing passages, it is incontestible that they have disfigured their ‘pathological observations’ by not rightly understanding, or not steadily keeping in mind, what *genuine* PATHOLOGY consists in.—The term means, and ought only to be used to signify the *physiology of morbid actions and structure*; it therefore involves reasoning on the nature, seat, and causes of diseases; it recounts not only the textures affected, and the organic changes cognisable in them; it also investigates the *nature of the morbid action*, in relation to those changes and textures. In the minute descriptions of morbid appearances which abound in the publications on modern medicine, the observers have not always recognised the distinctions betwixt the *disorganisation* which morbid bodies exhibit, and the

morbid actions which were the causes of the organic lesions. Hence, the mere enumeration of morbid phenomena in the dead subject has been absurdly styled *pathological anatomy* !

Dr. Baron has impressively shown that Pathology will remain imperfect so long as the ulterior products of morbid action are alone regarded, and the *primordia* overlooked. I have therefore inserted some cases of incipient Consumption, although they exhibited merely the symptoms of inflammation in the Lungs,—crude tubercles or induration having existed in a latent state. Such cases supply an important illustration of the origin of the Consumptive disorganisation.

The author entertains too much regard for his own character, and too sincere respect for the Profession, to obtrude the present Treatise on their attention did he not believe that it will be found to contain many important facts in the history of Consumption; so accumulated, arranged, and consolidated, as to establish Principles, by which those facts are philosophically connected, and the useful application of them in the cure of this interesting disease secured, and extended. As, however, most men are prone to make *their own* experience the ground of their assent to the facts and reasonings which are presented to them, he requests a serious attention to the admirable observations of WHATELY :—‘ In no way, perhaps, are men, not bigot-

ted to party, more likely to be misled by their favorable or unfavorable judgment of their advisers, than in what relates to the authority derived from *experience*; not that experience ought not to be allowed to have great weight; but that men are apt not to consider with sufficient attention, *what it is that constitutes experience in each point*: so that frequently one man shall have credit for much experience, in what relates to the matter in hand, and another, who, perhaps, possesses as much or more, shall be under-rated as wanting it:—The vulgar, of all ranks, need to be warned, first, that *time* alone does not constitute experience; so that many years may have passed over a man's head, without his even having had the same opportunities of acquiring it, as another, much younger; secondly, that the longest practice in conducting any business in *one* way, does not necessarily confer any experience in conducting it in a *different* way:—e. g. an experienced Husbandman, or a Minister of State, in Persia, would be much at a loss in in Europe; and if they had something less to learn than an entire novice, on the other hand they would have much to *unlearn*: and thirdly, that merely being conversant about a certain class of *subjects*, does not confer Experience in a case where the *operations*, and the *end* proposed, are different.—Rhetoric, p. 166.—2nd edit.

CHAPTER I.

ON THE FORMS OF PULMONARY CONSUMPTION.

THE Pathology of the Lungs comprehends three genera of disorders; the Inflammatory, the Consumptive, and the Nervous. The Consumptive Affections include all the cachectic * disorders which are characterised by cough, purulent sputa, hectic fever, and emaciation.

The mode in which these pathognomonic symptoms are combined is various in different cases, and this modification constitutes varieties of the generic disorder; but the essential symptoms of the genus must be

* The term Cachexy is used to signify 'a depravity which originates from, or manifests itself in, the Sanguineous function, as it regard the vessels or the fluid.' Dr. Mason Good, *physiol. nosolog.* p. 223.—All organic diseases are properly herein comprised.

found in all cases which are to be regarded as consumptive, although not in a constant proportion, or order of succession.

Some pathologists do not regard all the cachectic disorders of the Lungs as properly phthisical, as there is a tribe of organic diseases which exhibit a rise, progress, and characters different from the ordinary *scrofulous tuberculous* consumption. M. M. Laennec and Louis have severed the ‘melanotic, calculous, and cancerous species’ of M. Bayle from this genus: ‘emaciation and hectic being the most common symptoms of phthisis; anasarca and cachexy of melanosis.’ M. Louis even asserts that ‘*ulceration* in the lungs does not come under proper phthisis!’ Such affections might seem to form a distinct genus of the class ‘*CACHEXIÆ*,’—the *Pulmonary-hydropsic*; but dropsy is not an invariable attendant on those modes of disorganisation, and when it does occur, it is as truly an accidental accompaniment as in the case of tuberculous lung. Where the lung is *disorganised* in the above modes in connection with Anasarca, I shall consider such cases as forming varieties of the Fourth Form of Phthisis. When the pulmonary affection is simply Catarrhal, it will be placed under the Spurious order in the Third form.

No single symptom is invariably attendant on phthisical cases; the cough may be so slight as to escape observation until shortly before death;—purulent sputa

may never occur ;—*emaciation* and *hectic* are probably the most constant symptoms : but Tubercles in the lungs may excite fatal inflammation and serous effusion before visible wasting.

Morgagni, Juncker, Bayle, Laennec, Abercrombie, &c. have defined Phthisis ‘a fatal disorganising affection of the Lungs;’—‘which some of them regard as consisting essentially in Tubercles—and others in unhealthy Ulceration.

Such a definition excludes fatal cases of chronic pulmonary disorder, without visible *disorganisation*, in which the generic symptoms of consumption exist, as prominently as where the lung is ulcerous, or tuberculous; these cases, however, Drs. Brown, Gregory and Duncan have pronounced to be truly consumptive.—Dr. T. Young’s definition is—‘a wasting of the whole body from disease in the lungs.’ He follows Portal in condemning the definition which is derived from the pathological or anatomical character of the disease.

A Writer in the London Medical Gazette, vol. II. for 1828, well remarks that the ‘mode of assault in Consumption is various:—in one by spitting of blood;—in a second, by hard, dry cough—in a third, by pain in the side—in a fourth, by rigors, sweats and disordered bowels. The symptoms and states are protean.’ It is possible, however, to refer this variety in the symptoms

to particular forms of consumption, which are distinct in their origin and progress.

Dr. W. Philip remarks, that ‘in 99 of 100 cases when hectic and purulent sputa are present, it is phthisis. A quotidian remittent and an abscess in the fauces simulate it.’ Dr. T. Young states that the hectic is the most constant of the criteria, and the best measure of the constitutional affection and chance of recovery.’ Dr. Cullen’s definition: ‘*plerumque expectoratione purulenta,*’ implies that purulent sputa may be absent. Dr. Abercrombie has observed this irregularity; and in some of the cases hereafter narrated, cough, emaciation, and hectic, were the only symptoms.—‘A man pallid, weak, wasted, coughing—any one would pronounce him Tabid,’—Aretæus. These symptoms, however, do not always involve an essentially fatal disease.—‘Phthisis, if long, is not easily overcome.’—Celsus.

TWO STAGES of Consumption have been recognised by most observers.—Laennec distinguishes them by the different characters of the Sputa;—In the first Stage, a dry cough, then salivary mucous sputa, from immature tubercles, or copious and ropy when granular tubercles exist;—In the second stage, opaque, yellow, greenish, sputa, (the *greasy* fluid is from matter in the faces,) from open tubercles.’—Louis divides the stages into ‘that before, and that after the softening and evacu-

ation of Tubercles.' But this distinction does not always exist; a case may be fatal with phthisical symptoms before the softening of tubercles. Dr. W. Philip regards other symptoms also as distinctive of these stages;—
 ' In the languid Inflammation which precedes the *purulent* stage, the skin and tongue are drier, the pulse harder, and the appetite worse than in hectic.'

The symptoms enumerated in the generic definition have been found also to exist: first—in cases which terminated in recovery, and therefore it has been presumed, were not phthisical: and secondly—in fatal cases, wherein not the *lung* but some other part, generally one of the Abdominal viscera, was disorganised.—Hence cases with consumptive symptoms have been distributed by most modern writers, into **TWO ORDERS**, the *Spurious* and the *Genuine*.

That is genuine Phthisis, in the language of Celsus, when decline originates in a disease of the Lungs;—and the epithets *Tabes*, *Atrophia*, *Marasmus*, are used by recent nosologists to designate consumption from disease in other organs. When the lung is affected secondarily, and its disorder in itself minor and innocent, disease in another part being the primary affection, and the essential cause of death, such a malady may be properly designated *Spurious* or *Secondary* phthisis: and a diverse order of succession in the symptoms will distinguish this case from the primary

idiopathic affection of the Bronchial membrane which is termed Mucous or Catarrhal Consumption. But for practical purposes, all cases of *hectic* and *wasting* with *cough*, will be comprised in the present treatise, as they serve to illustrate a most serious class of Tabid maladies which might be mistaken, and mistreated, for genuine consumption.

If it is correctly assumed that phthisis is essentially a *fatal* pulmonary affection, a case of hectic from supuration in the lungs is not truly phthisical; for such a condition is *sanable*; this may be styled spurious consumption, in distinction from those cases which are necessarily mortal. To apply the term however to an insurable case of pulmonary disorder with phthisical symptoms, because the lungs are *not* visibly disorganised, is to introduce confusion into Nosology and Pathology.

Dr. CULLEN's distribution of Chronic pulmonary disorders, is very arbitrary and artificial. Under Dyspnæa, in the class Neuroses, order Spasmi, he comprises the affections which are inflammatory as well as those which are spasmodic in their origin; and in his definition he says nothing of *expectoration*: while under Phthisis, which he has removed from the class Cachexiæ, order Marcores, he says nothing of *Dyspnæa*. Purulency, which he regards as an essential character of confirmed consumption, is found to exist also in Tabes

Catarrhalis; which although disjoined by him from phthisis is, in a nosological and practical relation, truly *phthisical*. Hæmoptysis and Hectic are according to Cullen's definition, the only constant symptoms of phthisis : but as he enumerates *hectic* among the symptoms of *Tabes*, hæmoptysis must be the only invariable precursor, and the sole proper symptom of phthisis !

Dr. Abercrombie, in the *Edinburgh Journal*, vol. xviii., remarks that the symptoms which are regarded as *pathognomonic* of phthisis are fallacious;—that ‘cough, purulent sputa, hectic and wasting, do not constitute true consumption of the *lungs*—but other diseases; first, as intractable as consumption :—or secondly, curable— or thirdly, all fatal, but the *lungs* continuing free from disease.’

The general division of this subject (I.) into cases resembling consumption; and (II.) those deemed truly consumptive, as arising from disorganisation of the lungs, appears to be not sufficiently exact for practical purposes; as many of the former are sanable, and others of them *mortal*, (from various modes of pulmonary disorganisation, although not from the consumptive *ulceration*,) under all the symptoms observed in genuine phthisis. The general arrangement adopted in this Treatise, will exhibit two distinct orders;—First, the cases with the usual symptoms of consumption, apparently hopeless, but ending in *recovery*. (See chap.

III.) And Secondly, the cases progressively passing on to a fatal termination. In some of the cases in this latter division the disorganising malady is seated in other organs than the lungs; the cough and puriform expectoration being secondary. In these the supervenient pulmonary affection (which in most instances is confined to the mucous membrane of the Bronchia,) is not the proximate cause of the hectic and emaciation; nor is it essentially fatal: the primary disorder, however, has often been so completely disguised by the supervenient affection as only to have been detected on dissection.— (See Dr. Hastings on *Bronchitis*. p. 117.) An organic disease in the abdominal viscera may subsist in a latent or tranquil state for years; and then on the rise of a slight pulmonary disorder the patient will be rapidly cut off: so that this secondary affection which by itself would be innocuous, will in this complication be of important consequence.

It will be hereafter shown that the diagnosis of those Two Orders is not impracticable; and the distinction is of immense consequence in the prognosis and treatment of consumptive cases.

It will be seen that there are several varieties, in a sthenic and asthenic, an acute and chronic form, under each of the species of Consumption arranged according to the distinctions of morbid anatomy; e. g. that the ulcerous, tuberculous, and apostematous consumption

individually comprises cases of a different pathological nature; that therefore this mode of classification is not adapted to subserve the purposes of practical pathology. A practical distinction of the specific forms of phthisis may be founded on observed irregularities in the combination or succession of the symptoms, in respect of the general definition, when they are ascertained to be constantly related to distinct forms in the morbid appearances.

In the present CHAPTER I shall exhibit the nosological, literary, and diagnostic history of the several Forms to which the various cases of pulmonary Consumption may be referred, and exemplify them by appropriate examples. The FIRST Form comprises the Acute Hectical Florid Consumption, ordinarily from Tubercles; it is seen chiefly in scrofulous subjects. The SECOND Form is also seen in the scrofulous; it is singularly rapid in its progress, latent as it regards the extent of the disorganisation in the lungs, with *irregular* symptoms of an asthenic character—exhibiting the ‘Typhous aspect’ of Dr. Rush. It is connected with the softened ulcerous lung. The THIRD Form is the Catarrhal phthisis of various authors, from chronic inflammation or ulceration in the bronchial membrane;—the cases under this form will be placed in two divisions, the Genuine or primary, and the spurious or Secondary, where the pulmonary affection is symptomatic on dis-

ease in some other part. They are generally chronic in their course, and characterised in their origin or progress, by the symptoms of inflammation in the lung or its investing membranes. The FOURTH Form is also chronic, remittent, and inflammatory; related to induration, tubercles, or ulceration in the lung.

It is probable that these Forms constitute only Two essentially distinct *pathological species*; the first two forms bring *scrofulous* and *constitutional* in their origin, the latter two *local*, and more allied in their nature to inflammation: their pathology will be more fully discussed in chapter II.*

This arrangement is believed to be strictly *practical*; as it will be seen in chapter iv. that the several forms require a different mode of treatment; and it is *scientific*, inasmuch as they are severally connected with definite varieties in the morbid appearances.

Irregularities in the symptoms are found in all the species and forms: these will be particularly noticed in the second part of this chapter, after the cases.

* Dr. T. Young remarks that each of M. Bayle's species is so complicated with the others, that a correct distinction during life is rendered impossible.' But unquestionably, the rapid hectic scrofulous phthisis from caseous tubercles or gangrenous ulceration, which is included in M. Bayle's first and fourth species, presents a very different external form from the chronic remittent phlegmatic phthisis, with induration, or the albuminous tuberculation, which corresponds to his 'granular phthisis.'

CASES EXEMPLIFYING THE FIRST FORM.

This Form comprises the Scrofulous constitutional species, occurring in subjects who exhibit the characters of that diathesis, or being combined with actual scrofula, external or internal; it is essentially mortal from the nature of the constitutional affection, or from the extent of the local disorganization; the symptoms are acute; the progress rapid; it presents the Hectical aspect of Dr. Rush. Two Orders of cases will be given;—First, those which were seen in a state of pulmonic inflammation, but ascertained by their result to be of a truly consumptive nature, although life was destroyed before the completion of the phthisical disorganizing process; and Second, cases seen in the state of confirmed phthisis. In some the affection was chiefly seated in the bronchial membrane, or in the interior of the lung,—consisting in a suppurative action, with or without Tubercles; in others, the symptoms indicated an affection of the exterior or Serous membrane of the lung and of the chest. The former may be styled Em-pneumonic, the latter Peri-pneumonic cases. Some cases again are simple, the Lungs alone being diseased; in others there is an important complication of other maladies. On these latter the several Sections will be founded, for the more distinct comparison of cases similar in important symptoms.

SECTION I.—SIMPLE PULMONIC CASES.

CASE I.—A. B. f.* (June 2, 1831,) a. 22, of a fine form and strumous aspect—who had been a prostitute for four years, and had Syphilis two or three times; the last attack being eighteen months ago, for which she used Mercury—was admitted into the Hospital of Poor's Portion a fortnight since, with cough, severe in the evening and morning, sweats, pain at the left side, and mild remittent fever. She was Bled once, and used Tartar-emetic as a nauseant; being considered by the Surgeon-Apothecary to be in the *early* stage of phthisis. Her death was unexpected.

Inspection 36 hours p. m.—The body rotund, not emaciated, pallid; no Anasarca. Serum in both sacs of the Pleuræ, the larger quantity in the left, where much firm adhesion existed; the Lungs were very large, posteriorly livid; in the dorsal portion of the upper lobes were many small unvascular tubercles, apparently scrofulous, hardish, without membranous coats; eight or ten as large as peas; a few softened and excavated; the cavities being the size of a small bean; no ulceration of the lung's substance. The interstitial pulmonic tissue was red, and a little dense, but not hepatised.—A line of greater density and redness surrounded the larger tubercles, of a different aspect from that in peripneumony, as if from obstructed circulation merely, and not the adhesive inflammation. The Left lung presented most disease. The mucous membrane of the larger Bronchi was scarlet and roughish; a little caseous mucus and pus in some of the air-cells of the upper

* Note f. or m. signifies the sex; a. the age.

lobes; the lower lobes were reddish and turgid. The Bronchial glands black and softish throughout. The Pericardium held Serum. The Heart was pallid and large. The Liver large, soft, of a nutmeg aspect, exhibiting a fatty state, but indistinctly. Green bile in the Gall Bladder. The Spleen soft, in colour like raspberry-jam. In the Mucous Membrane of the *Stomach* was a spot the size of a shilling, red, rough, and softened, although Dyspeptic symptoms were absent, or not ascertained to exist. The Kidnies small and pallid.

Comments.—The effect of debauchery is here seen to be the softening and bleaching of organs. The proximate cause of death was congestion of blood, and impeded circulation, in the lungs: this with the consequent serous effusion, which readily happened in a system rendered atonic by this unfortunate person's vicious mode of life, quickly suffocated her. Hydrops pectoris was the chief morbid appearance. Anasarca or edema pedum, is not an invariable symptom of Hydrothorax. This case presents the views;—1st, That tubercles are a *specific secretion*, not originating in common inflammation, and therefore not found to subsist in a definite proportion to the marks of such inflammation. 2nd.—That the morbid vascularity in the Lungs is an effect, as well as a cause, of tubercles. 3rd,—That the softening and excavation of these are not necessarily effected by a process similar to that of *ulceration*. 4th.—That the Bronchial membrane is

irritated by the cough, and the acrid matter which exudes from the tuberculous cavities. Lastly, this case shows with how little of the ordinary aspect of phthisis Tubercles may subsist in the lungs; and how rapidly inflammation there, to which they are a disponent, may be fatal by the effusion of serum !

CASE II.—Birch, m. a. 3. (March 9, 1825.) ill for three weeks with a raucous harsh cough, quick breathing, fever and emaciation. (Hirudines. Nauseantia.) 12th—Much cough, fever worse at nights, (Cr. Med. St. Calomel. Cathart.) 14th, Relieved ; Medicine intermitted. 18th,—Fever high, pain at the right side, cough severe, but short, bowels purged. (Cr. Med. Antimon. Tart. Ipecac. cm . Opio. E. Canth.) 31st—Cough remains, with fever ; bowels irregular. (Tra. Digitalis, Opii.) April 7th—Death.

The disease began in Pertussis a year ago ; no medical aid was then sought ; cough but with little expectoration remained ; then emaciation became visible, and Hectic ; the appetite being little disordered. No visible strumous marks in the Parents.

Inspection.—Little emaciation, no dropsy ; abdomen livid. Slight pleuritic adhesion at the upper part of the chest ; no serum effused. The Lungs extremely nodulated, variegated in color with whitish dense spots surrounded by lividness ; they sank in water ; masses of cheese like matter interspersed through them, surrounded by indurated portions, of an aspect as if coagulable lymph had been lately deposited ; large cavities also existed, which opened into the air tubes full of viscid uniform

fluid which sank in water; it was unlike the entire globular mucous sputa seen in adults. Some portions of the Bronchial glands were indurated. The mucous membrane of the Bronchia was red.

See cases very similar by Dr. Lettsom, *Dispy. Reports on Pertussis*, 1774.

CASE III.—(By Dr. Wilson Philip, *Symptomatic Fevers*, 1820.) Asthma in a continued fit, the chief symptom. No emaciation, little debility, fever, or sputa, observable by Dr. P.

Inspection—The lung converted into tubercles, some containing pus. This *irregularity* in the symptoms is memorable.

See Case by Dr. Ferriar, *Medical Histories*. f. a. 19.

..... Dr. Russel, in Dr. T. Young's work, p. 229.

..... in Monkeys, *Archives Generales de Medicine*, Fev. 1831, Dissection interesting.

See a very good Case by Laennec, Dr. Forbes's *Trans.* m. a. 29.

..... Ditto m. a. 22.

.... Dr. Home, *Med. Facts.* p. 189.

VARIETY A—WITH HÆMOPTYSIS.

CASE IV.—Westaway, m. a. 27. (Aug. 10, 1829,)—of a sanguine nervous temperament, has for some months suffered from occasional Hæmoptysis, and now presents the ordinary symptoms of Phthisis: for five days he has had acute pain in the Kidnies, impeding the extension of his body in bed, with dysury, sickness, and fever; the tongue coated and dry, the pulse full; some blood expectorated. He has used Opium, Ipecac. Calomel, and Salines. (Miss. Sang. Rep. med. cm. Antimon. sine opio.) 14th—He still has pain at the Kidnies, with fever.

(E. Canth. Salina, Hyosciam.) 16th—Much better, but weak. He has had some severe pain in the limbs which seemed to be neuralgic. 20th—Complains still of pain in the limbs and back ; but he sits up, and eats meat. (Hydrarg. Laxantia.) 26th—Phthisis advancing. 30th—In bed, expectorating purulent sputa ; extreme weakness ; a rapid soft pulse ; pupils of the eyes large. (Nitr. Potas. Scilla.) September 9th—Better, except that emaciation is advancing. 16th—A severe return of Hæmoptysis, with pain at the chest, and fever. (Miss. Sang. xij. oz. Repr. med. cm. Hyosciam.) Blood drawn is very buffy. 20th—Much tremor, and wakefulness ; cough with bloody muco-purulent sputa ; a full inspiration excites a hoarse deep cough ; pulse quick and full ; red urine ; tongue dry. The medicine seems to have purged him severely. (Hirudines viij. Scilla, Ipecac. ad nauseam. Hydrarg. cm. Creta.) 22nd—He has expectorated one oz. of fluid blood, with some mucus ; pulse sinking ; no sleep ; he says that his medicine seems to favour the Hæmoptysis. (Acid. sulphuric.) 24th—Voiceless ; a small quick pulse ; a brown dry tongue ; he continues to spit blood, and exhibits much irritative fever and restlessness. 26th—Death. He was sensible to the last hour.

Inspection—60 hours p. m. The chest contracted ; much emaciation and lividness of the body. The Lungs very adherent to the sides ; inelastic ; full of hardish tubercles, some like grape-stones, others as large as peas, softened, containing caseous pus—no ulceration of the lungs. In one place there was a deposit of matter like old cheese, the size of a large chesnut, enveloped

in a cyst of condensed cellular tissue, without blood vessels—manifestly an unorganised mass, softened in the centre! In other parts, the interstitial pulmonic textures were finely injected with blood, so as to be of a scarlet color. The mucous coat of the large bronchi was also very red, in great part merely stained by the blood, with a little morbid vascularity. Some cheesy pus in the large air-tubes. The right lung was the most diseased. The Bronchial glands were large. The Heart very flaccid and large from distension, its veins large; its right cavities full of dark clotted blood. In the Pericardium 4 oz. of serum. The Aorta held some bloody-watery-fluid. The Liver soft, flaccid, and granular. The Colon distended with air. In all the coats of the Ileum was a diffuse vascularity, but no ulcers.

Comments.—This an exquisite example of Scrofulous Phthisis; fatal in the early stage of the suppuration of tubercles, from acute-inflammatory-hæmorrhagic action. The Hæmoptysis was from the obstacle presented by the extraordinary tubercular masses to the pulmonary circulation.

SECTION II.—WITH DISORDER IN THE BRAIN.

CASE V.—(From the Medical Gazette, vol. IV.) ‘An adult male was affected with pain at the loins and right flank, vomiting and ischury; pulse 100; emaciation, debility, and a pallid anxious countenance. He had been ailing for four months; worse only for ten days, formerly of debauched habits. (Tra. Opii. Sodæ Tart.

S. Carb.) May 21.—(Cucurb. cruentæ lumbis, et de-
tract. Sang. Ib. Liq. Potassæ, Tra. Hyosc. Opium,
Salin. Efferves.) 24.—Pain at the belly, delirium;
pulse 100 intermitting, turbid urine, numbness at the
thighs; *some cough, no sputa*, he can inspire fully with-
out pain. (V. S. 10 oz. Balneum, ol. Ricini.) 26.—
Acute pain at epigastre; alvine functions natural;
pulse 90 intermitg. a dry rough cough; delirium at
night. (Hirudines 24 epigastrio.) 27.—Convulsed;
dilated pupils; pulse as before. (V. S. Ib. Enema,
Lotio Spirit. capiti raso.) 5 p. m. Coma, stertor, arms
convulsed; the blood buffy. Death.—He had a blow
on the head ten years ago.

Inspection.—Brain softish; 6 oz. of clear fluid in the
ventricles; the arachnoid at the Tuber annulare cloudy.
Medulla Spinalis softish, and fluid within its mem-
branes. The Lungs, at their upper lobes, especially
the left, were filled with crude tubercles! the Spleen
adherent to the diaphragm; recent coagulable lymph
on both parts; in this organ, tubercles pea-size, con-
taining pus; on the splenic aspect of the diaphragm
were miliary tubercles.—In the Liver similar tuber-
cles.—In the Kidnies a few like mustard seed.'

Lobstein is correct in saying that this granule is
more the immediate product of *acute* inflammation than
is the caseous tubercle; although both kinds I believe
are essentially related to *scrofulous* inflammation in va-
rious degrees, and form one *pathological* species.
Their general diffusion shows a constitutional origin.

SECTION III.—WITH DISORDER IN THE ALIMENTARY CANAL.

CASE VI.—*Pulmonary inflammation, with Tubercles, Peritonitis, Tubercles in the Abdominal Viscera:—Ulceration in the Intestine, and Brain affection.*

Gorfett, f. a. 27, (Sept. 24, 1827.) has been ill for two months with pain at the head and abdomen, with tremor, shivering, and remittent fever; nausea in remittent paroxysms; micturition is difficult; the bowels costive, the tongue little furred, the pulse tense and quick. (Miss. Sang. Fetus. Calomel, Antim. Tart. Scammon. Salina.) 25th—Vomiting from the medicine, when taken without the saline; the blood drawn exhibits a soft coagulum, and is not sizy. Her headache was relieved by the bleeding, but it has returned; costiveness for two days; yet the pulse is softer, and she has less pain. (Sulph. Magnesiae cm. Senna, Intermr. alia.) 26th—Purged four times; complaint of pain in the loins, and occasional shooting of pain in the belly, and she faints when in the erect posture; little fever. 27th—The Saline caused vomiting yesterday; the Senna has opened the bowels to-day. (omitr. medicament &c.) 29th—Pain in the small of the back, which is not affected by change of posture; in other respects she is better. (Cataplas. E. C.) Oct. 4—Convalescence. (Cinchona. cm. Rhæo, Acid. Nitric.) July 8th, 1829—For three weeks in June she had Synochus and a severe cough, which were then relieved by Purgatives, a Blister, Squills, Camphor, &c.; but the Squills, &c. with some Tincture of Gentian, induced excessive purging. Afterwards, under the use of mild evacuants, the pulse improved, but she felt weaker.

(In similar cases of Fever I have used stimulants so late as the end of the fourth week, when convalescence has been slow, but seldom with success.) There is now a feeble rapid pulse, coldness of the skin, and a look of prostration. July 10th—There has been a return of the cough, which some Squills and a Blister have relieved. 15th—Acute peripneumony has supervened; the cough severe, the sputa very viscid and gelatinous, (which is said to characterise inflamⁿ. in the air-cells,) the pulse and respiration are very rapid; the countenance of bad aspect. (M. Sang. Hirudines pectori, Salina, Hydrarg^m. Scilla, Digitalis.) 17th & 18th—She has not been bled: a few days ago she complained of pain at the head, with vertigo and nausea; there is now much confusion at the brain, and vomiting; the pulse very irregular, now slow, then rapid; an aspect of depression; there is little cough, and the respiration is relieved: much sweating, and the heat of the body is less than natural. Are these symptoms from the Digitalis? $1\frac{1}{2}$ dr. of which has been used with Tincture of Squills, 6 dr. in four days. (Intertmr. medic.—St. Conf. Aromat. Spirit. æther. Nitros. Magnes.) 19th—Last night she had a spasm in the face, with low delirium; at present costiveness; the tongue clean; pulse 100, soft, regular; sweating and prostration remain, but she is sensible. (Vinum. S. Quininæ, Enema. Acetum, cm. Aq. Tepida, capiti raso.) *Evening*—The wine and quinine not used: she moans, and is unable to express her feeling; costiveness remains, with a furred white tongue, a tense quick pulse, the pupil of the eye natural. (Enema, Hydrarg. Scammon. Antimon. Ipecac.) 20th—No stool for three days; the tongue moist with a furry soft coat; pulse as before: senses low, but coherent: pupils

dilated; the blistered part on the chest is sore; the urine copious, but red. (Mist. purgans. enema &c.)—*Evening*.—Two scanty stools obtained by two doses of the medicine, and two clysters. July 21—A marvellous improvement! Two more good stools passed; the tongue soft; the pulse 90, regular, of good strength; her mind has regained its power; she complains of being very sore: sweating continues; urine copious; the Lungs seem to be quite relieved! (Jusc. Bovini, Mist. purgans, Camphor. Tinct. Cinchonæ.) *Evening*.—The medicine excited disgust, and she seemed worse after two doses: (Intermr. medic.) 22nd—One good stool passed in bed; she seems lower, but is sensible; complains of her head and belly, which is tender; the tongue moist, but furred; the pulse frequent, full, regular, of good strength. (Hirudines viii. epigastrio, Ipecac. cm. Rhæo, Hydræ. cm. creta.) 23rd—She has been purged of good stools, and is better; (Salina, Magnes. Victus ex Lact.) 24th—The pulse full; much prostration of strength, and a sense of oppression at the belly, which is tumid; much thirst. (Pil. Hydr. Ipecac. Scamn. Vin. Colchici, Liq. Ammon. Acet.) 25th—Less excitement, but more exhaustion of the vital powers; tongue clean, many fetid feculent stools passed; no pain: little food or medicine taken. (Mag. cm. Rhæo, Colchicum, Arrow Root.) 26th.—Profuse colliquative sweating; little complaint of pain, but that the stomach is loaded; no sickness; two very fetid stools passed; pulse very rapid; the tongue loaded, but moist; senses clear, some head ache. The slight cough which she had, has subsided for some time. Is the irritation of the Brain sympathetic with the Gastro--enteritis? Is the sweating from

the Colchicum ? (Intermr. medic. St. Sulph. and Nitr. Potass. Scammon. cm. Rhœo.) 27th—Death.

Inspection.—(28 hours p. m.)—Much emaciation of the limbs; little discoloration. The Abdomen somewhat tumid.—Slight adhesion of the left Lung at its upper and back part: the whole Pleuræ and Pericardium vascular and glistening, without opacity. The Lungs in their exterior aspect speckled with opaque points, like fine millet-seed,—the miliary tubercle in its earliest stage, appearing to consist of small cysts filled with gelatine. The whole interior of the Lungs was filled with similar tubercles, without distinct cysts; the interstitial pulmonic texture finely injected with florid blood; the smaller air-tubes natural, a little mucus in them; but the inner coat of the larger bronchi was like scarlet-cloth: no vestige of suppuration, softening, or ulceration visible. Portions of the Lungs floated in water. In the Pericardium, 2 ounces of serum: black clotted blood in the right cavities of the heart; their left empty. The Aorta sound. The Peritoneum abdominis very vascular: the entire membranous surface of the Liver was speckled with white tubercles, the largest, the size of half peas, situate on the convex side of the right lobe; the inferior part of the left lobe firmly adherent to the spleen: its interior soft and full of fine pellucid granules. The Spleen in a similar state. The Pancreas hardish. The peritoneal tunic of the Stomach, at its large end particularly, that of the Duodenum, Jejunum, and the inferior part of the Ileum, was vascular, as if finely injected; the whole canal was full of air and serous fluid; the mucous coat

of the Stomach, at the cardia, was vascular and soft, as if from long previous inflammation; its pyloric end also pulpy, but not vascular—it contained much fluid. In the first part of the Duodenum was a spot, consisting of a tuberculous accretion: all the coats of this gut were very vascular. In the first part of the Ileum was an Ulcer with vascular edges, penetrating through all the tunics except the peritoneal. The Mesentery vascular: the Gall-bladder full of greenish bile, which had transuded so as to stain the intestines. The Kidnies exhibited a fine florid vascularity. The exterior coats of the Ovaries opake and thickened: many corpora lutea in their substance, which was hardish; but this may be its natural character in the impregnated.—She had borne seven children.

Comments.—Although this is not a case of complete Phthisis, it is placed here as illustrating the early character and inflammatory origin of this kind of Tubercles. The subsidence of the Pulmonary symptoms, while the texture of the lungs was seriously diseased, shows that Tubercles may exist in a *latent* state. Such extensive inflammation, and tuberculation may properly be referred to a constitutional origin. This patient had unequivocal marks of a scrofulous diathesis. This mode of disease is different from the ‘Adhesive inflammation’ described by Mr. Hunter, which leads to the induration of parts by a deposition of Fibrin. The softening of an organ is here seen to be the result of a specific morbid action, which is identical with that which forms the

Scrofulous Tubercle. Lobstein, however, in his excellent work on 'Pathological Anatomy,' affirms, that such granules as this case presents, are not *tubercles* in their properties or origin, but the result of 'epi-phlogose.' We cannot always trace the intimate relation of tubercles with inflammation so clearly as in the present instance; and it is probable that the scrofulous caseous gelatinous tubercles exist independent of inflammation, at least of inflammation developed by its ordinary symptoms, and that when this is combined, it is an *accompaniment*, and not its efficient cause, or essential condition. The first effect of this specific vascular action is a deposition of points of gelatine or albumen, which are subsequently enveloped by cysts, formed by the compression of the contiguous cellular texture.—It is also probable that this tuberculous deposit is to be referred to a chemical change in the *Blood*, as well as to the peculiar actions of the Blood-vessels and Nerves. The mode of death in this case was by exhaustion of the vital powers, from the previous over-action of the arterial system. The amendment on the 21st, might have been led to a delusive prognosis of recovery. The previous Fever, and the abuse of Digitalis, contributed to render the constitution incapable of sustaining disease by their atonic influence on the Sanguiferous and Nervous systems. There is a similar case, as to the state of the Lungs, in Louis, paragr. 475. The fluid in the

alimentary canal was a morbid secretion, for the patient had drunk little shortly before her death.

CASE VII.—West f. a. 30, May 15, 1829.—Has long suffered under Diarrhœa, from inflammation in the mucous coat of the Intestines, chiefly characterised by dryness of the skin, a brown tongue; a quick pulse and intense thirst. She was relieved by the use of Leeches, Salines, and Digitalis. At one time the symptoms indicated ulceration of the intestines: she then used $\frac{1}{2}$ gr. of opium and Sulphate of Copper. b. d. with apparent advantage. 17th—The tongue moist, pulse soft, and less quick; some sweating; no Hectic; a *slight cough*, which has existed for some time. (Acid. Sulphuric.—Nitric. Acet. Morphiæ, Tinct. Scillæ, Sal. efferv.) 22nd—A quick pulse, a dry tongue; no pain; diarrhœa and cough are severe; much emaciation. (Repr. med. St. Opii. and Sulphat. Cupri. āā. $\frac{1}{2}$ gr.; b. d.) 26th—No pain, except on pressure at the right of the navel; high hectic, severe diarrhœa. (Digitalis, Acid. Hydrocyanic.) June 2nd—The purging continues; she is evidently dying of ulcerated intestines. Opium and Sulphate of Copper used; the mouth aphthous; profuse sweating; no tension of the abdomen. 5th—Death.

Inspection.—24 hours p. m.—Emaciation extreme: the abdomen sunken; the exterior of the Liver was vascular tuberculated, and adherent to the diaphragm by fine elongated cellular bands; its interior hardish, as if in the early state of tuberculation. The Peritoneal coat of the Diaphragm over the right lobe of the Liver,

was also covered with points of albumen, but not vascular. The Spleen soft. The Stomach internally vascular, soft, of a pappy aspect. The Pancreas hardish. The lower third of the Ileum was excessively diseased presenting at least twenty *ulcers*, some as large as a sixpence, with elevated edges, and a grey sloughy fiery surface, others less deep and pale; a few had penetrated all the coats of the intestine but the external, which was vascular and livid, presenting large spots of thickened, indurated coagulable lymph, and miliary Tubercles. In the contiguous layer of the Mesentery were large, hardish, vascular glands. The Ileum near its end was distended with air, elsewhere it was contracted; in one portion which was more healthy there was much yellow mucus containing a round worm. The large intestines were healthy. The Lungs adhered firmly to the Ribs, and were full of hard white tubercles. The Pericardium held 10 oz. of serum.

Comments.—The low degree of pain in this case is remarkable; the tenderness on pressure at the præcordia, was from inflammation in the peritoneal coat of the Liver. This case, like the former, is an instance of a general, constitutional, disposition to Tubercles, and of the remarkable connection of phthisical disease in the Intestines and the Lungs. That species of *hard white* tubercle which is usually attended by the induration of an organ, and *callous* ulcers, is seldom found in the scrofulous subject: but the primordia of this species, which may be designated the *albuminous* tubercle, and

of the *caseous* are very similar. The Tubera of Serous membranes, which DR. BARON has so finely portrayed, are usually found in the Scirrhus-cancerous constitution; and are, I believe, essentially distinct in their origin, characters, and progress, from those seen in West and Gorfett.

CASE VIII.—Roberts, f. a. $1\frac{1}{2}$, October 26, 1829, was seen in the last stage of Gastro-enteritis, which had been neglected; the stools bloody and gelatinous; the vital powers collapsed. This child had been ill for a year, after the Measles; with cough at the first, which had subsided. The remedies for pneumonia were at that time used. (St. Hydrarg. cm. Crcta, Vin. Colchici, Acid. Nitric. Tr. Opii, Gin.) 28th—The System is less exhausted, but the purging of fetid stools remains. 29th—Death.

Inspection.—(24 hours p. m.)—Emaciation; color pallid. The right Lung adherent; in it were many small *abscesses*, not communicating with the air-tubes; the interstitial pulmonic substance natural; a few air-bladders on the under surface of the Lung; its anterior part was of a doughy aspect; the posterior dark. The left Lung unadherent, containing only two small Abscesses. The Pericardium held $1\frac{1}{2}$ oz. of Serum; the Heart pallid; black blood in its ventricles. The Liver healthy; it extended two inches below the ribs, which is natural in infants. The Duodenum and Ileum a little vascular. Some bilious mucus on the inflamed parts; the peritoneum being torn off, the vascularity

was seen to be seated in the *muscular* and *mucous* coats of the intestine. The Glands of the Mesentery were somewhat large, but not otherwise diseased. The Colon was very small, its mucous coat vascular. In some parts the Ileum was as small as a chord, from vital contraction, and here its mucous coat was healthy.

Comments.—There was less disorganization of the intestines than the symptoms indicated. The Abscesses in the Lungs were probably of a scrofulous nature; they were inadequately developed by the pulmonary symptoms, which is explained by their not communicating with the air tubes. This is a distinct form of disorganization which is not essentially mortal. Boerhaave has adverted to this as a species ‘*ulceris tecti, quam diversa phthiseos.*’!

CASE IX.—Langdon, f. a. 21, a Sempstress, of a florid scrofulous complexion, May 15, 1828, has been ill for five weeks of short breathing, cough, pain at the epigastre and sick head-ache; the urine is red; the pulse quick; the menstrua interrupted for seven weeks. There are some hard strumous glands in the neck, which have become enlarged since the cough began. (St. Scammon. cm. Rhæo, Vin. Colchic, Tr. Scillæ, Digitalis, Liq. Ammon. Acet.) 16th—She has been purged, and is better. 19th—Pain at the stomach, and sickness on taking food, also on fasting; no appetite; vomiting with the cough; thirst; a white tongue; a very small quick pulse; the skin cool; the bowels lax; vertigo. (Hirudines epigastrio: V. Colchic. cum Liq.

Ammon. Acet.) 21st—The animal faculties are low; she complains of pain shooting from the stomach to the back; the pulse, countenance, and tongue improved.—Three natural stools a day. 24th—Much vertigo and pain at the head; a dry hot skin, but the palms of the hands perspire; a slight *tracheal* cough, which induces vomiting; quick respiration; acute pain at the right hypochondre; *red* tongue, furry at the root; much thirst, the belly lax without medicine; no appetite; some relief from the Leeches. (Hydrarg. c. Creta. Calomel, $\frac{1}{3}$ gr. Ipecac. cum Rheo, Sulph. Potass. Abradr. capilli, Hirudines epigastrio.) June 4th—Better. (Infus. Cascarillæ, Tr. Colchici et Scillæ, Acid. Nitric.) 10th—Less pain at stomach; but no appetite; much weakness; 14th—Pulse 120, Hectic; no pain. (Tinct. Scillæ, Colchici, Digitalis, Liq. Ammon. Acet.) 17th—Small pulse; a red dry tongue, but less fever; five stools a day; the cough worse in the evenings. (Cr. med. St. Cretam cm. Opio.) 20th—Diarrhœa checked; cough severe, with sputa. 23rd—Restlessness, much cough: opiate vomited; the epigastre tender; pulse 120; tongue red; high hectic; severe diarrhœa. (Colchic. Hiruds.) 27th—Much fever and diarrhœa. 30th—Pulse 140; severe cough and hectic; little pain, and the purging is abated; she complains of spasms in the Lungs, and breathlessness. (St. V. Colchici, Æther.) July 2nd—Less of spasmodic dyspnœa: symptoms milder. 4th—Restlessness: fever high: back ache: copious sputa, but less cough. 5th—a mere skeleton: pulse 160: four stools in a day: voice gone. 10th—Death.

Inspection refused.—An instance of the Scrofulous Consumption, and of the serious influence of Gastro-

enteritis on its progress and treatment. The mildest Tonics are injurious in such cases; as well as the ‘*Nimia diligentia medici!*’

CASE X.—Rose, m. 30, (Dr. Home’s Clinical Patient, Edinburgh, June 13, 1820.) has suffered under a severe pulmonic affection for six weeks; he now has cough, orthopnœa, purulent sputa, hectic, aphthæ, diarrhœa, and extreme debility; he has been in the ward twenty-five days. (Miss Sang. Emp. Canth. Hirudines, Digitalis, Hydrarg. cm. Opio.) 28th.—The cough is severe, with copious puriform sputa, mingled with yellow bloody mucus; he has pain in the *left* side of the chest, which is much increased on a full inspiration, with dyspnœa when lying on the *right* side; hectic, and a morning remission with sweating, but in the interval the pulse and heat are inordinate; he has been Bled three times and used Blisters on every part of the chest. (Cathartics, Hydrargyrum, Demulcents, Tr. of Digitalis, m. 15, b. d. for 15 days, without effect, and Elect. Catechu, cm. Opio. for the diarrhœa.) The mercurial affection of the mouth was for a long time a source of misery. The Opium seemed to increase the Hectic sweats. At his own request he was allowed Wine and Beef-tea, which increased the fever and accelerated the fatal progress, for orthopnœa, diarrhœa, aphthæ and death followed in ten days.

Inspection.—An Abscess in the left lung, not communicating with the bronchi; much purulent matter around the Pericardium, the diffusion of it in the chest being prevented by an adhesion of the pleuræ; Serum effused into the Lungs.

Comments by Dr. H.—‘Phthisis from inflammation is more rapid than that from Tubercles or Asthma. Bleeding is the best remedy in the last stage of phthisis; the severity of the cough is alleviated, the expectation becomes easier, but the weakness and perspiration are increased by it; yet it is imperatively requisite in order to alleviate misery. A small quantity of Hydrargyrum induced salivation more rapidly than ordinary, and promoted the aphthous state of the mouth and throat. Some years ago it was given largely in Consumption, and the specific effect was not easily induced.’ Dr. Home uses Digitalis largely, sometimes with the effect of *suspending* but *never curing* undoubted phthisis. ‘An operation might have been performed with a chance of entirely evacuating the matter; but nothing could lead us, before death, to an exact notion of the state of the Lungs. On examination with the Stethoscope the lower part of the chest did not communicate the sound of respiration, which shows an obliteration of the air-cells by effusion or induration’.

The quantity and viscosity of the mucus in the sputa are a sign of subsisting inflammation in the Lung: when this has completely subsided, I have found the sputa like *raw cream*.

CASE XI.—B. K. a.9. (September 1821,) a scrofulous boy, who had the Hooping Cough some time ago, now

has cough, dyspnœa, diarrhœa, and some stupor. Dr. *Sanders*, of Edinburgh, said that the disorder was *Hydrocephalus*.—Death ensued shortly.

Inspection.—Effusion of puriform serum into the Bronchia; suppurating tubercles in the Lungs, which might be traced into the air-tubes. Pus in the Intestines; the mucous membrane of which was thickened and slightly ulcerated. The Mesenteric glands were enlarged. The Brain natural.

This case displays the ordinary organic ravages in Phthisis; and suggests a useful caution in Diagnosis;—the stupor which deluded Dr. *Sanders*, was from exhaustion.

CASE XII.—Urquhart, m. a. 24. a mason, (February 2, 1822, from the Edinburgh Clinic.) suffers from a hard cough, which is relieved on expectoration; a sense of *tightness* in the chest, but no pain: some head-ache, and nausea, with a sense of weight and fulness at the *stomach* on taking food: the tongue white, the belly lax; pulse 96: he is fatigued by the slightest exercise, which also excites perspiration. These complaints began four months ago from cold; and have persisted, notwithstanding that he was early confined to the house, bled, and blistered. (Miss. Sang. 10 oz.) 3rd—The blood sizzly; pulse 90, and sharp; tongue *white* but moist; pain at the breast increased; his ordinary respiration is easy; pain at the head on coughing. Miss. Sang. 12 oz. E. Canth. sterno. M. Mucilag. Pil. Rhei. co.) 4th—Irritation at the Larynx; he never spat

blood ; the appetite does not return ; pulse 118 ; less head-ache. (Hirudines xij. gutturi. Cr. med.) 5th—Less tickling in the throat, but the cough remains ;—breathing freer : pulse 88 : the *Digitalis* cause sickness : thirst and whiteness of the tongue remains ; the bowels costive. (Ol Ricini, Hirudines, Cr. alia.) 6th—The cough was more severe in the night : some nausea to-day ; pulse 100 ; three stools. (Cr. med.) 7th—The breathing becomes worse *at intervals* with more uneasiness under the sternum ; cough as before : some nausea and giddiness after the *Digitalis*, pulse 86. (Intermitr. *Digitalis*. St. ol. Ricini. Mucilag. cm. Tr. opii ammon. t. d.) 8th—Cough and respiration relieved : the oil operated well : pulse 90, full : a white tongue, and bad appetite. (Cr. Mist. Repr. *Digitalis*. St. Infus. Gentian) 9th—Less uneasiness under the sternum ; bowels costive ; pulse 84. (E. Canth. sterno.) 11th—Breathing and cough easier ; pulse 90 : want of appetite, and some nausea. (Fever-diet ; milk 1 lb daily.) 12th—Nausea, but no vomiting : pulse 72. (Intermr. *Digitalis* et Gentian. Cr. Mucilag. c. Tr. opii ammon. St. Acid. Sulphur.) 14th—Infus. Sennæ et alia. 15th—More cough, *a little blood expectorated* ; pulse 76 ; the nausea from the *Digitalis* is gone ; bowels open. (Cr. Acid. Sulph. and alia.) 16th—Defect of appetite. (St. Calumbæ. 8 gr. Sulphat. Zinci. 1 gr. b. d.) 19th—Some blood in the sputa : sweats less : pulse 88. (Intermitr. Calumba cum. Zinci. Sulphate. Habeat Cerevisiam.) 20th—Cough worse last night, and more uneasiness on a full breath ; pulse 100 ; some sweating ; (Hirudines 8 sterno.) 21st—The breast easier, but he has pain at the thigh. (Illinr. crus. Tr. Sapon. cm. Opio. St. Tr. *Digitalis*, m. 15, b. d.) 22nd—Pain at

thigh relieved. (E. Canth. Sterno.) 23rd—Cough with less sputa; pulse 90; no sweating; a bad appetite. (Cr. med.) 24th—Cough and sputa remain; sweating; some Ether and laudanum taken for dyspnœa which he vomited; bowels open. (Cr. Med.) 25th—Pain at the right side of the abdomen and thigh. (Blister. Opiate. Porter 1 lb.) 26th—Nausea from Tr. Digitalis; pulse 90. (Cr. Mucilag. cm. Tr. Opii. Ammon.) 27th—Nausea abated; respiration easier; cough remains. (Cr. Med. Beef-tea Hiss daily.) March 2nd, Sweating and a bad appetite remain. (Magnes. cm. Rheo. et P. aromat. Intermr. pil. rhei. Cr. alia.) 5th:—More sweating; more blood in the sputa:—(Intermr. Acid. Sulph. St. Decoct. Cinchonæ. Liq. Opii. Sedat. *m.* 20, Mucilag. cum Tra. Ammon. Opiat.) 7th—Nausea and vomiting from the Bark. (Intermr. Cinch. St. Acid. Sulph; et Liq. Opii. Sed.) 10th:—Cough; nausea after food; pain at the *thigh* remains, and is worse on motion. (Ipecac. Flannel. Cr. alia.) 11th—Easy vomiting; much sweating; bad appetite; a furry tongue; costiveness. (Cr. Acid. Sulph. &c. St. Pil. Rhei. Co. o. n.) 13th—Some vomiting; (Cr. Acid. Sulph. St. Vini, 4 oz. Omitr. cerevisia. Cr. Liq. Opii. Sedat. *m.* 30. vespere.) 15th—Much thirst: no sweating; some lax stools. (Intermr. Anod. St. Pil. Opii, Cr. Alia.) 16th—Many stools. (Cr. Opium.) 19th, Worse. (St. Liq. Opii. sed. *m.* 35. h. s.) 20th—No stool; skin hot. (ol. Ricini.) 21st—One stool; some sweating. 22nd—More cough; no diarrhœa. (Liq. Op. sed. *m.* 45.) 23rd—Bowels costive. (ol. Ric. Acid. Sulph. Liq. opii sed.) 26th—His back is sore by lying. (Lot. e Spt. Vini. St. Æther, cm. Tr. Opii.) 27th—Sacrum inflamed. (Lot. Plumbi &c.) 29th—Same state.

(ung. Zinci. ol. Ricini.) April 1—A bad night after the opiate; Bowels costive. (ol. Ricini, Tr. Hyosc.)—3rd—A good night without a narcotic. (Vinum. Acid. Sulph.) 6th—Little cough; no sputa. 5th—Much delirium. 6th—Delirium; some stupor; pain at breast. (Tr. Sapon. cm. opio.) 7th—Delirium; sore on the right Trochanter dark. (Catapl. fermenti. Mucilag. cm. Tr. opii. ammon.) The nates sloughed. 17th—Occasional delirium; little sputa or diarrhœa.—Death.

Comments.—By the clinical Lecturer—‘suspicion of the Lungs being tubercular, but no active inflammation. The fever keeping up after two bleedings was important; the last blood drawn was not sized. Dyspeptic symptoms prominent. A favorable sign that he never spat blood, (i. e. at the origin of the disease, or to any serious extent.) Dissection warrants the inference, that a great part of the symptoms in tubercular phthisis is dependant on inflammation around the tubercles. A chronic scrofulous inflammation also existed at the larynx here; for which Dr. Abercrombie has found leeches useful.’

It is impossible not to lament the steady progress of the malady, and the utter inutility of the treatment in this case. Too much medicine was certainly given. The alternation and combination of the symptoms are very interesting. The mode of death was unusual. It presents a form of the disease so latent in its early stage, so insidious in its progress, so deceitful and contradictory as to the consilia medendi which it indicates,

that no malady requires greater perspicacity and vigilance in order to discern its true character, or more caution and exactness in its treatment. It was long ago remarked that dyspeptic symptoms accompanied phthisis, but their nature was unknown. Although the want of a dissection here is much to be regretted, we are enabled by the inspection of analogous cases to explain the pathological causes of this important complication; a complication which from the remedies here employed appears to have been little understood by one of the most accomplished physicians. We are indebted to *Broussais* and *Louis* for illustrating this stomach affection, *which often attends the most fatal form of phthisis*, and disguises or supersedes the pulmonary disorder.

The aspect of debility, the absence of well marked sthenic inflammatory symptoms, seem to require and admit of the use of *Tonics*, where these would be of fatal consequence. The mildness of the cough, and the innocent qualities of the sputa, might lead to a most deceptive view of the nature and extent of the disease in the lungs. It is likely that in Urquhart, there were minute ulcers in the mucous lining of the larynx, bronchi, and stomach. To such cases the *mild expectant* medicine of the modern French School is exquisitely adapted.

CASE XIII.—A. T. a 22, (Jan. 1831,) of high sensibility and genius, in June, 1829, after a severe cold, was affected with cough, and pain at the left chest, which was neglected for three months. In the winter she suffered much from fatigue and mental anxiety. In the spring of 1830 she spat blood, and the pain of the side became acute. Leeches and blisters were then used, general blood-letting being neglected: the cough persisted during the summer, with expectoration of one ounce of matter in a week, like *soft cheese* mixed with common mucus, which on drying became friable;—the matter of Tubercles? A physician then thought her to be in consumption, and prescribed the lichen island. and change of climate. She has never worn flannel; and has persisted in the use of wine and animal food. There is now a deep sonorous cough, occasional hoarseness of the voice, evening fever, and some emaciation: the menstrua irregular. 6th to 11th—An attack of Measles, during which the cough and sputa were suspended, and diarrhœa came on. Kino, creta, and flannel were then prescribed. After the measles severe pain at the side returned, with a harsh cough, and difficult expectoration. (Nitrat potass. liq. ammon. acet. tr. digit. pil. hyos. p. Jacobi, ipecac. hirudines.) 14th—Respiration very quick, costiveness, a rapid but softer pulse, (110—120) a loaded dry tongue, intense thirst. (Calomel. scammon. tr. scillæ. ung. hydr. antim. tart.)—17th—Cough less harsh, but in severe paroxysms at night with more excretion of viscid opaque bloody mucus, without a vestige of pus, or tuberculous matter; four stools a day, which are more natural; hectic at 2, p. m. pulse 120, tongue clean and moist. (Hyosciam. scilla, cum aceto.) 18th—Cough relieved; some blood

from the nostril. Percussion painful below the clavicle, and betwixt the shoulders, where also by the stethoscope the respiration is inaudible. The voice is so raucous and low that pectoriloquy cannot be ascertained. (Acid. nitric-hydrocyanic. narcotic, h. s.) 19th—The narcotic has been of admirable effect; hectic at noon, during which there is oppression at the lungs, with hard cough and laborious respiration, and appetency for solid food. (Interm. acid. nitric.-hydrocyan.) 20th—Good stools, pulse 110; defect of voice remains, but no irritation at the larynx. (E. C. hyos. cum digital. vesp.) 21st—Fever and cough relieved, sputa less viscid, tea vomited but no nausea; pulse 100. (Acid. nitric. victus ex carne decocto.) 24th—Cough severer, sputa more copious, ragged and viscid, tongue loaded, the legs ache, vertigo on exercise, much emaciation, no hectic, soreness at the larynx fetid stools. (E. c. alia ut 6to. supra.) 27th—Since the severe weather the symptoms have become worse, the arm is numb as if the ulnar nerve were struck; some roast chicken cat. (Acet. scillit. hyosc. &c.) 28th—The sputa sink in water, are fetid and caseous, seeming to consist of pus or soft tuberculous matter; hectic high, with tightness at the chest, which some leeches relieved, pulse 100.—The adhesive inflammation in the lungs seems to have prevented the opening of the tubercles into the bronchia before now; the inflammatory stage, which began in the measles, has ended in a month. 29th—The caseous sputa enveloped by viscid mucus. (Infus. calumb. aurant. acid. nitric. prussic t. d. hyosciam. scilla. o. n. pil. cath.) 31—More cough, and fawn-coloured sputa; pulse 120, soreness beneath the sternum. (Omnitr. victus ex carne, et tonica. St. scil. et digital. hiruds.) Feb. 1 and 2, relief. (E. c.)

3rd—pulse 130; less pus and blood in the sputa. (Infus. humuli cm. digital. t. d. liq. opii sedat. hyosciam. ipecac. o. n. vegetable diet.) 10th to 14th—Stupor and delirium from the narcotics; the sputa now consist of pure pus; aphthæ and diarrhœa, tremors from debility, pulse 110 to 130. (Infus. calumb. cm. aceto. liq. calcis, catechu, acet. morphinæ.) Diet of yolk of egg, and beef tea.

By these remedies the diarrhœa was stopped, the thrush disappeared, and the system was composed, but copious purulent cream-like sputa with colliquative sweats continued.

19th—Mild delirium from exhaustion, after transporting religious emotion. On using some *cold* lemon-tea she complained of a sense of suffocation as if dying; this was relieved by external heat; pulse very small and rapid. (Claret ordered.) 22nd—Aphthæ have recurred; much cough, less easy expectoration; the sputa are large, and seem to come from large cavities in the lungs; little fever. The subsidence of fever, when fits of syncope and suffocation supervene, marks the approach of death. 25th—Porter and animal jelly used, little medicine but magnesia and rhubarb; more cough, hectic and debility; dyspnœa in paroxysms. (E. canth.) 26th—Relief of suffocation, but the odour of death observed all the day. At 6 p. m. mortal exhaustion ensued on her making a slight effort; at 7, consciousness was entire, her mind full of christian peace and hope; then followed a dreadful agony of suffocation, which was relieved by admitting the fresh air; at eight o'clock the pulse was gone and the limbs cold; then mild delirium and risus sardonicus, which were succeeded by coma, the respiration continuing, but

performed chiefly by the auxiliary respiratory muscles, then it became suspended at intervals; shortly after a rattle in the throat the last breath was expired, her countenance remaining beautifully tranquil;—a faint emblem of the bliss of her saintly spirit in the presence of her Saviour and her God!

The measles certainly excited into fatal action the disease in the lung, which had probably long ago formed tubercles and induration. The softening and evacuation of tubercles is here seen to be a distinct condition of the lung from inflammation; although this is often an adjunct which essentially promotes that state. The symptoms in January were obviously distinct from the simple debility hectic and purulent expectoration which existed during February: the change observed in the sputa from a viscid to a cream-like character marked the entire subsidence of inflammation. The utility of sedatives, narcotics, and counter-irritants was very manifest. The unusual definiteness and alternation in the symptoms and the phenomena of dissolution render this case very interesting.

CASE XIV.—Horral, m. a. 30, (*February* 20, 1829,) of a florid strumous aspect, has been ill for six weeks, from cold, with cough, sputa and much dyspnœa. He has had diarrhœa lately; at present tremors, a white tongue, and rapid pulse. Several of his relatives have died of phthisis. (Colchic. scilla, digitalis, creta cum

opio.) 24th—Much better. (Acid. nitricum, rheum, E. C.) March 4th—No cough, but some pain at the side, and breathlessness on exertion, a quick pulse, and a white expanded tongue. 11th—Much breathlessness; aspect delicate. (Sulphas ferri, digital.) 16th—Cough, perspiration, red urine, a rapid pulse; in other respects better. (Sulphas potass. cum rheo, scilla, et alia.) Pain at the stomach like heart-burn, ascribed to the medicine; little cough, mind dejected. (Magnes. E. Canth.) 30th—Cough, with breathlessness and fainting, but the stomach is better. (Scilla, æther, digital.) April 6th—Complains of heat at the stomach and sleeplessness. (Magnes. digit.) 8th—Vomiting and ischury. 15th—Phthisis advancing; the legs swell, and he is sick and giddy; all the medicine, even soda-water, is vomited; gastritis erythematica developed, hectic aspect. (Nitric. acid. digitalis, hirud. magnes. in aq. cinam.)—The mildness of the phthisical symptoms, and their alternation with the dyspeptic, deserves remark. 20th—Much anasarca. (Acetum scillit.) 26th—Death.—The disease ran its course in four months.

A well marked instance of the acute scrofulous consumption; it forms an interesting subject of comparison with Langdon's and Urquhart's; the tonics were here also injurious. See Louis, in chap. II. for the morbid appearances in the stomach in similar cases.

CASE XV.—(From the Medical Gazette—Middlesex Hospital reports, 1828.) In a coachman, a. 45, Jan. 1, hectic, emaciation, cough, puriform sputa and diarrhœa. His illness began in the previous summer in cough,

pain at the chest, chilliness and heats; the expectoration came on only two months ago. Opiates and astringents checked the diarrhœa and cough; but emaciation and debility increased. *Feb. 2*—Sudden severe pain in the bowels; relief from opium and fomentation. *4th*—Death.

Inspection.—The lungs presented the usual tuberculous appearance; on the heart were white spots, from coagulable lymph; the pericardium adherent in one part. In the ileum an ulcer *perforating* it, but no feces had escaped; another had penetrated to the peritoneal coat, having thick ragged edges; there were many other ulcers superficial. Healthy pus in the small intestines; their exterior was of a dull red color.

‘Ulceration in the mucous membrane of the intestines exciting peritonitis, the intestines are thereby glued together, or the vessels from the mesentery which pass into them lay down fibrin betwixt their coats, and so perforation is prevented. The remission in the symptoms was deceitful—the depression of the vital powers, and of the countenance, portended a fatal issue.’—Might not the astringents have contributed to the rise of the peritonitis?

§ 4.—CASES OF A LARYNGEAL AFFECTION.

CASE XVI.—Brown, m. a. 29, of a strumous aspect, six months ago became affected with severe inflammation in the lungs; when seen by me he had severe cough with copious fetid sputa, breathlessness, sore

throat and hoarseness; some uneasiness at the left side, extreme emaciation, hectic, pulse 160. (Acid. sulphuric, cum tr. opii, copaiba, inhalatio vaporis picis liquidæ.) After the use of these medicines the hectic became worse, the tongue brown and dry, with intense thirst, yet he was unable to drink from the affection in the throat;—his voice was lost, and he became deaf for three days before his death, on May 3rd.

Inspection.—The body was somewhat livid; the left lung adherent to the chest, and presented a mass of softened excavated tubercles, with much induration and ulceration. The right lung was also full of suppurating tubercles, but with less of induration; no mark of any reparatory process was visible. Serum in the pericardium; black blood in the heart, which was sound but pale. The liver and stomach were healthy. The mucous coat of the ileum near its valve was inflamed, but not ulcerated.

This case suggests a useful caution on the use of Excitants even in very exhausted states of consumption.

See also cases of Westaway, of Urquhart, and A. T. § 3.

CASE XVII.—Chartres, f. a. 17, a sempstress, of a scrofulous aspect, (March, 1823,) had for some time been affected with cough, copious purulent sputa, and hæmoptoe, a raucous voice, severe hectic and diarrhæa. On using Cinchona the hectic was converted into a continual fever, with acute pain at the side. Digitalis and Hyosciamus reduced the fever, and opium allayed the bowel complaint; but death rapidly ensued.

Inspection;—Serum in the left cavity of the chest; pleuritic adhesion in the right; the lungs presented an entire mass of softened excavated miliary tubercles, and ulcers. The Larynx was also ulcered.

The Hectic generally corresponds with the degree of local inflammation and disorganisation.

CASE XVIII.—Yeo. m. a. 9, of a scrofulous aspect; (October 11, 1830,) after synochus from a fright and exposure to cold, seemed to be affected with gastritis erythematica, marked by weakness, sickishness and defect of appetite. He was bled for the fever and soon relieved. (Acet. colchici, hyosciamus, hydrarg. cm. creta, hirudines, epigastrio.) 18th—A milky tongue and quick pulse, yet little complaint, and he has walked out of doors. (Rheum, sulph. magnes. empl. lyttæ.) 22nd—Pulse rapid, colliquative perspiration, no pain, he is worse at night from a close room. (Calomel, ipecac. pil. hydrarg. salina, digital. colchic.) 24th—Pulse very rapid, his temper which was mild is become irritable; he complains much of debility; a *slight cough* for a few days, quick breathing, a craving for food, the bowels lax. (Pil. hydr. o. n. hyosc. acid. nitric.) 26th—Less cough, the system more tranquil. (Pil. hydrarg.) 31st.—More cough and emaciation. (Oxymel. scillit. vin. ipecac. ad vomendum.) Nov. 4th—Pulse 120, tongue red, much irritation and some tenderness at the larynx; purged but not vomited by the medicine; hectic, turbid red urine, occasional cough in strong paroxysms, eyes pearly; at one time extreme prostration so as to appear to be dying; his voice is now strong; he resisted the use of leeches. (Calomel,

digitalis, ipecac. scammon, magnes. cataplas.) 7th—Respiration very quick, pulse 126, medicine neglected, dark stools, little cough, no pain; the aspect of tuberculous phthisis, with little sthenic inflammatory action. 13th—Constant irritation at the larynx, some mucus excreted, hectic at 3 p. m. confusion in the head, an emetic desired but leeches still refused. (Sulphas. zinci, digitalis o. n.) 15th—No vomiting from two doses of the zinc, fever higher, tongue white, respiration very quick, severe laryngeal irritation. (Miss. sang. 4 oz. salina, oxymel. scillit. digitalis, ipecac. ad nauseam.) The blood sisy, the omission of its earlier abstraction is to be regretted, but his emaciation deterred me. 16th—In a severe storm exacerbation of all the symptoms, a rapid tense pulse, no sickness from the medicine. (Hyosciam, vin. ipecac. antim. tart.) 18th—A similar state, no emetic effect. (Hirudines.) 21st—Pulse failing; cough and breathlessness, but little sputa. (Acid. prussic. sol. acet. morphiæ.) 22nd, Dysphagy, profuse sweats, severe cough; very laborious respiration, countenance sunken and pallid. 24th—Voice nearly gone—placid death at night;—a month from the first cough!

There can be little doubt of the existence of hepatitis and tubercles in the lungs, with inflammation in the larynx. He might have been saved by the earlier loss of blood, but this was resisted. The insidious rise of this fatal malady deserves attention, and should impress on the practitioner the value of the admonition—*‘obsta principiis, serò medicina paratur.’*

CASE XIX.—Reported by Dr. Cottureau, Archives generales de Medicine, 1830. A strumous lady aged 25, (Dec. 1827,) after an abortion had a dry cough, orthopnoea, and pain at the scapulæ. These symptoms were relieved until April 1828, when being again pregnant, there was an exasperation of cough, with pain from sputa to September; then copious sputa, hæmoptysis, hectic emaciation and hoarseness. In December, a safe parturition; after which there was a return of hæmoptysis, hectic, &c. until the spring of 1829.—The cura consisted of anti-phlogistics, anodynes, and a milk-diet. From May to July, diarrhœa, emaciation, the voice inaudible, a leaden colored dry skin, morning cough with copious opake greenish sputa. consisting partly of viscid mucus. On percussion, there was a sonorous part below the *right* clavicle, the chest elsewhere dull; by the stethoscope no respiratory murmur heard around it; at the left chest only a mucous rattle; cavernous respiration and pectoriloquy in the right axilla. Then the pulse became irritable, respiration hurried, evening hectic; pain at the larynx shoulder blade and chest, which leeches and a blister relieved. The inhalation of CHLORINE was then used from July 20 to August 23; which made heat and dryness in the fauces, but relieved the cough, dyspnœa and sweats, until September 10th. On percussion, the right side now was less dull; by the stethoscope, no mucous rattle audible on the left side, but some pectoriloquy and cavernous respiration on the right. The further use of chlorine was then prevented by pain at the larynx and chest, until October 15. In November, less pectoriloquy, and great relief of the other symptoms. *December*—Health restored, no pectorilo-

quy, but where it had been the respiration was now inaudible, and a dull sound on percussion!—April 26, 1830, after fatigue and grief the menstrua were checked, gastro-enteritis became developed; leeches and venesection were used, but fatal delirium ensued on May 28th.

Inspection. — Emaciation; two cervical glands enlarged, indurated, holding chalky matter.—The trachea natural; the lungs crepitant; the *left* adherent, at its upper part a tuberculous mass as large as a pea, invested by a membrane, containing matter like that in the cervical glands: some other minute tubercles. The right adherent, at its upper anterior part was a firm puckered dark cicatrix upon a hard fibrous mass, at the edge of the cicatrix was a globule of tubercular matter like a steatome; the bronchia here were obliterated. Some miliary tubercles in this superior lobe, but the pulmonic tissue around them and elsewhere was sound. The mucous membrane of the stomach was red and pulpy; the ileum red, the mesenteric glands like the cervical.

This is a credible and an invaluable case. External scrophulous ulcers are seen to spread progressively until they are stimulated, when they heal, the contiguous texture being indurated. This felicitous event is rare in the lungs from the frequent existence of inflammation around the tubercles. The use of remedies in phthisis from the analogy of external ulcers requires caution, from the great danger of the stimulants inhaled into

the tuberculous cavities exciting inflammation, when it had not previously existed. In very few cases of genuine tuberculous phthisis are cordial and tonic medicines salutary, or even *innocuous*; *inflammation and ulceration of the stomach is no unfrequent consequence of their abuse*. The use of such remedies by *inhalation* or *cutaneous absorption* is the least perilous, and certainly deserves attention.

LITERARY AND DIAGNOSTIC HISTORY OF THE FIRST FORM.

SYDENHAM's second species belongs to this form ;—
'a summer cough in the young, and hæmoptysis, uncasiness at the chest after wine; at length ulcers in the lung and a spitting of pus.'—This is often termed the 'hæmoptoic phthisis,' spitting of blood being a precursor or general attendant. It also answers to some cases of 'bronchitis asthenica.' Its pathological cause is simple scrofulous inflammation in the bronchial membrane, or ulceration in it, and tubercles in the lungs. To this form some cases of Sydenham's fourth species may be referred,—'the consequence of excessive evacuations, attended by aphthæ'. It is often secondary on bowel complaints, e. g. in Case vii.

MORTON also describes this form—‘its progress rapid; violent cough and dyspnœa, although without much ulceration in the lungs.’ This description will apply also to certain cases to be placed under the fourth form, where death was premature from accidental inflammation in the lungs; but in this species, the rapid progress is not an essential property. The cough is sometimes extremely violent and sonorous, in asthenic cases, where the membrane of the larger bronchi seemed to be the chief seat of irritation. Some cases also, which as it respects the morbid appearances merely, are allied to the third form, are found in their symptoms corresponding to the present class; and are believed to be in their essential nature, allied to the scrofulous consumption;—their proximate cause is a suppurative inflammation of the bronchial membrane, which does not admit of the remedies proper to the chronic-catharrhal-phthisis.

Dr. HOME (Medical Facts, 1759) observed that ‘the acute was more intractable than chronic phthisis;’ the truth of this remark is exemplified in the foregoing cases.

SELLE, 1788, remarks that ‘Tracheal phthisis is the least curable of any; anxious respiration and hoarseness its chief characteristics.’

Dr. CULLEN (‘First Lines,’ parag. 889—96) has given an admirable description of the rise and progress of the

present species. An analysis of his history will exhibit three stages of the disorder :—in the first, little disorder is observable, but the breathing is hurried on exertion, and there is emaciation and languor ;—in the second on a cold, cough and sputa supervene,—remaining longer than in simple catarrh ; in its progress, the sputa become more opaque and purulent, then more dyspnœa, amenorrhœa, and pain, or uneasiness, on one side ;—in the third, complete hectic is formed ; hæmoptysis is not constant. The time of its course is two or three years.’ It is very seldom however, except after middle life, that the scrofulous phthisis has so long a course.

Dr. RUSH states ‘ the early symptoms to be slight fever on exercise, burning in the hands and feet, weak eyes, a flow of urine, flushing in the face, pain at the chest, which is not always pleuritic, headache, want of appetite, inactivity.’—A very characteristic portrait.

Dr. CLARKE in his ‘ Compend. Medicinæ,’ well describes the symptoms of the scrofulous phthisis ;—‘ hot extremities, much urine, blushes, raucedo, deliquium, a dry cough induced by efforts, the breathing leviter molesta, rapid, with a sighing sound ; then a night cough, and vomiting after food ; then wasting, and purulent fetid sputa, the fauces appearing as if slightly inflamed, pearly eyes, falling hair,’ &c.

Dr. ROLLO observed that the keen appetite, clean red tongue, and clear urine, alternated occasionally

with a state the opposite in all respects, and returned in a few days.' He does not explain the pathology of this alternation in the symptoms; its cause is an inflammation in the mucous membrane of the stomach, when it is necessary instantly to discontinue the use of tonics.— See cases ix. xii. xiii. xv.

Dr. WILLAN describes a 'variety of hectic found in middle age, or at the beginning of old age, with aphthæ, mucous expectoration, pain in the head and limbs, a red papillous tongue, nausea, hiccup, diarrhœa, bloody feces, slight delirium;—*fatal in five or six weeks.*' Scrofulous inflammation in the mucous membranes of the respiratory and digestive organs, with ulceration and tubercles, are the morbid appearances, which Willan does not seem to have ascertained.

Dr. PARR represents the first symptoms,—'a quick pulse at evenings, with very slight cough, at times hemorrhage from the lungs; the case is often mistreated for amenorrhœa!'

Dr. T. YOUNG says that 'hectic is constant, and cough or shortness of breath, or pain on deep inspiration; the respirations 40 in a minute, the cough occasional or little noticed.'

Dr. MARSHALL HALL speaks of 'a more rapid variety in which the skin is hot and dry, and there is more urgent dyspnœa, cough with copious sputa, and a rapid pulse.' He had no dissection of this case, and did not understand its pathology.

Dr. ROBERTS (Med. Trans. Coll. Phys. iv.) describes the tracheal consumption, which is a variety of the present form—‘fever more irregular, sputa bloody, but wanting the pale green colour observed in tuberculous consumption; pulse quick and strong, although the heart is sound: the mucous membrane of the bronchi is found only inflamed.’ There is sometimes also pus in the air-tubes. The cases of suppurative and ulcerative inflammation in the mucous membrane of the trachea and larynx which belong to this form, the lungs being not disorganised, are certainly very rare; whereas the secondary laryngeal affection is very common.

Dr. W. PHILIP remarks that rapid phthisis resembles pneumonia;—short cough, pains, increase of dyspnœa, quick circulation, wasting, languor, hardness of the pulse, which is a criterion of inflammation, occasional heats are the chief symptoms.’ The appearances on dissection are a red capillary injection or hepatisation of the pulmonic texture in the interstices of the tubercles. This intercurrent inflammation in phthisical cases is well set forth in the Edinburgh Journal for 1821, by the Reviewer of Lloyd on *Scrofula*;—‘in the case of tubercles forming slowly, being latent, on an injury to the chest, or the amputation of a limb,—fever, cough, dyspnœa, and hectic ensue, and in a few weeks death. Tubercles are found in the lungs, enveloped with purulent matter in contact with the inflamed pulmonary cellular texture. A proof, by the way, that

a tubercle itself is not *organised*, else pus would have been found in its centre here, and that its change from a crude to a softened state is not from inflammation within itself, but a chemical death from the excessive morbid action in the surrounding *vital* textures.

Dr. MALDEN, Med. Gaz. 1831, remarks, that ‘short quick respiration, with a hurried small pulse, and short dry cough, are sometimes the only symptoms where the lungs are found tubercular and hepatised.’ The phthisical condition of the tubercle, or of the system, had not taken place in such cases; the affection should be termed a tuberculant inflammation. See case vi. p. 19.

Dr. CHEYNE (Dublin Hospital Reports, vol. V.) says, that the ‘outset of phthisis is like a general fever, no permanent local affection existing,—then a dry cough, emaciation, and hectic.’ In another variety—under the the aspect of bronchial hæmorrhage, which is symptomatic of incipient consumption, under the use of anti-inflammatory treatment recovery ensues, but it is *not sound*; there is emaciation, a dry barking cough, long and often a solitary symptom of slow tuberculation,—hectic and death. It is seen in the strumous diathesis.’

M. BAYLE represents the early symptoms in his first species, which is similar to the present, to be ‘a dry cough, rice-like sputa, an evening febrile state.—In the second stage, hectic and wasting.—In the third, a worse condition, diarrhœa, cough, and purulent sputa:’ and

it may be added with Dr. Rush, the transition from a hectic to a typhous or low afebrile state shortly before death.

M. LOUIS, paragr. 216, says there was cough at the outset in a tenth of the cases, dry for some weeks, then sputa clear, and afterwards rather opaque and greenish. In some cases hæmoptysis at the first. Below the clavicle, the respiratory sound through the stethoscope was weak, in some a mucous rattle, and the sound of the chest was less clear on percussion; then hectic came on.' Par. 281. 'In the second stage a weak cough, and by night, sputa opaque, green lacerated, then hæmoptysis, dyspnæa, and pleuritic symptoms, entire anorexy, even when the stomach is sound; diarrhœa in some twenty days before death, in others longer.'

CASES EXEMPLIFYING THE SECOND FORM.

THIS is the most rapid and intractable form of consumption; it is not essentially connected with common inflammation in its rise or progress; there is not vital power enough in the system to develop a sthenic form of disease, either as it respects the symptoms or the changes of structure. Its anatomical character is for

the most part *ulceration without a lining membrane*, of a gangrenous character, presumed to be of a scrofulous essence, devoid of a trace of the adhesive, and with little of the suppurative inflammation. Most extensive disorganisation subsists before severe symptoms. Its progress is extremely rapid, and the symptoms are low and irregular.

§ 1.—UNCOMPLICATED PULMONIC CASES.

CASE XX.—Orchard, f. a. 27, was seen first by me on March 26, 1830, with symptoms of mild synochus. She had been unwell for eight days with chills, pain in the head and loins, and nausea. She was bled to 8 oz. After this, she seemed to her medical attendant to suffer chiefly under gastritis. April 12th—Pulse 120, a dry tongue, the manner and aspect that of low fever. She persisted in the use of calomel with effervescent salines from the 16th to the 25th;—the symptoms remaining, although mitigated. 29th—She was much purged and vomited two days ago; a blister has relieved the pain at the belly, the tongue is now cleaner, and the pulse less rapid; she feels better, and is taking less medicine but is very pale and weak; she is allowed an egg at her desire, her diet has hitherto consisted of rice-gruel. May 16th—For many days, a severe cough with salivary sputa, and breathlessness; pulse 100. (Diagnosis, bronchitis asthenica. Cura; hirudines, E. Canth. salina, diuretica.) 20th—Relief.

It was afterwards learnt that in June the cough and spitting increased, and at the end of the month the sputa were bloody, fetid, and of a putrid taste; she had also sweats with little fever, much debility; a waxy shining face, and severe diarrhoea. She said that she had noted three sorts of spitting; the first described as salivary mucus; then purulent and opaque; and lastly, putrid pus. No medicine was used in this month; an advanced state of phthisis was not then suspected. On June 30th she went to Mount Edgcumbe for change of air, when she had a presentiment of dying. On July 3rd, she was seized with acute pain at the left side of the chest, which continued severe until the evening of the 5th, when she died. Fifteen weeks only had elapsed from the beginning of her illness, eight only from the first cough!

Inspection, 39 hours p. m.—Little emaciation, the belly tympanitic, the integuments of the chest and abdomen fat and muscular. The left cavity of the chest held 1lb of turbid serum, with flakes of fibrin and pus, the pulmonal and costal pleura was stained by an exudation of dense green matter, no pleuritic adhesion; the left lung was coated with opaque fibrin,—the effect of the fatal pleurisy,—its substance soft, pallid, a little crepitant, as if in the first stage of putrefaction, except at the middle of the upper lobe, where one portion was carneous; in the middle of it was a large ragged ulcerous cavity, of a semi-putrid aspect, containing fetid pus; the lung contiguous to the hepatised part was soft. No tubercles.—The membrane at the division of the trachea was red, but lower down in the bronchi more natural. The right lung merely softish,

inelastic, and pallid; its bronchus red, and the pulmonic veins stained. The liver and spleen were softish. The stomach healthy, some mucus on its coats. The intestines and mesentery healthy.

This is an instance of simple ulceration in the lung; the slight condensation and vascularity around the disorganised part, was unlike that from *sthenic* morbid action. Is it not a *scrofulous-ulcerative-gangrenous* inflammation, consisting in high action with low power, such as seen in external scrofula?—The action is *asthenic* and rapidly disorganisant. There is nothing in this mode of disease requiring or sustaining active evacuant or debilitant remedies. A sedative tonic plan seems most proper.

All her family are delicate in complexion, but they show none of the usual marks of actual scrofula. Her brother died of phthisis; her sister in synochus, with a singular variety of scrofulous inflammation in the stomach and intestines.

CASE XXI.—Francis, f. a. $21\frac{1}{2}$, (August 13, 1828.) is affected with pertussis. (Hyosc. scilla. colchic. hydr. cm. creta.) 17th—The disorder in the respiration is relieved, but the pulse and animal faculties are low, the face cold and tumid. (Cr. med. st. acid. nitric.) 18th—Respiration quick and low, severe cough, less sweats. (Æther, emp. lyttæ.) 19th—The aspect of death. 20th—Less cough, more dyspnœa; death at

night. She had measles eight weeks ago, from which she never recovered.

Inspection.—Abdomen tympanitic, face livid and tumid. In the pericardium and pleuræ 2 oz. of serum. The heart sound. The left lung condensed by the congestion of blood and mucus in the air-cells; in its upper lobe was a dark brown gangrenous cavity the size of a beer cork. The interior of the large bronchi was vascular. The other organs were sound.

CASE XXII.—(By Dr. Townshend,—Medical Gazette, vol. I.) A male, a. 30, ill five months of emaciation, dyspnoea, hectic, morning cough, and mucous sputa; pulse 120, respiration 130. The right chest protuberant, a clear hollow sound on percussion there, respiratory murmur inaudible, vibration as of a jar heard on coughing, not on speaking; at the upper part of the left chest cavernous respiration and pectoriloquy. No pain at the right side, no sudden aggravation of complaints at any time.

Inspection.—Air in the right chest, with 4 lb of green fluid; the right lung small and compressed; on inflation into the trachea air passed through a perforation at the anterior part of the upper lobe of this lung into the chest; tuberculous cavities also existed here.

RIVERIUS mentions a case 'where the lungs were found suppurated and gangrenous, with fetid water in the chest; yet no preceding symptoms of disease, but a slight dry cough.'

In the *Edinburgh Medical Essays*, vol. V. is a case by Dr. St. Clair of a child who died of epilepsy, having been for some time in apparent health, in whom the right lung was found full of tubercles and abscesses.

LOUIS paragr. 373, describes a case of hectic at 1, p. m. daily for a year, with little appetite, much thirst and wasting; then cough in the second year; disorganisation of the lung subsisting!

He also narrates a case, paragr. 377, 'of fever preceding cough, which had existed only for the last six weeks of life; yet a vast excavation at the top of the left lung.'

See also a case paragr. 395.—'the general symptoms violent, many functions disordered, the organs of which were sound, and the only organ which seemed from the external signs to be untouched—the lung, was disorganised!

LAENNEC has an interesting example of this form; see Dr. Forbes's translation, case 12. m. 53..... Ditto case f. 25, under *Pneumo. Thorax*.

See also *Middlesex Hospital reports*, *Med. Gazette*, August 1829.

And in the *Edin. Med. Surg. Journal*, an important essay by Dr. Abercrombie, § 3. case 4. vol. xviii.—§ 5. case f. a. 25.—§ 6. m. a. 24.—§ 7. case m. a. 21. and f. a. 24.

CASE XXIII.—(Report from St. Thomas's Hospital, 1829.) M. a. 45, after sleeping on damp cotton : shivering fever, cough, hoarseness, dyspnœa. No remedies used. Two months afterwards admitted into the Hospital, emaciation, little weakness, violent cough in fits, frothy sputa, dyspnœa, livid lips, no pain, but soreness of the chest on coughing, a deep hoarse voice, pulse 80 irreg^r. Respiration trachœal in the chest, sound clear on percussion. (V. s. 3 oz. liq. antim. tart. 1 oz. ad vomend.) 8th—No vomiting, blood buffy. (Antim. tart. b. d.) 25th—Vomited by a. t. 4 oz. b. d. some relief, symptoms remaining. decoct. senegæ then used without effect. To April 21st—The remedies were antim. tart. sulph. zinci, tr. opii.—Features now shrunk, fetor of breath. 25th—Death.

Inspection.—48 hours, p. m. Fetor; serum beneath the sternum. Lungs of a dark brown hue; from the right dark frothy fetid fluid exuded, its substance lacerable and dark; air-tubes (vesicles?) at the surface of this lung admitted a quill. (Emp hysema in the cellula tissue?) In the left lung, at its upper lobe, a cavity bounded by gangrenous tissue, percolation of fetid grumous fluid; bronchia dilated. No tubercles, no hepatitis. Heart flabby lacerable, dark. Pericardium held 4 oz. of serum.

Such a variety of phthisis evidently requires the use of other remedies than those herein employed. Why has the surgery of external ulcers been so little applied in the cure of pulmonary disorganisation?

§ 1.—VARIETY A WITH HÆMOPTYSIS.

CASE XXIV. (by Dr. Hastings, Midland Med. Surgl. Reporter, August 1829.)—F. a. 20, of a consumptive family, for two months slight cough, and a little bloody sputa, then pure blood expectorated. August 29—Aspect cadaverous, eye dull, pulse 76, no fever, respiration free and easy, a barking cough in the morning the chief complaint, yet at the left chest pectoriloquy is heard ! (Cucurb. cruent. scapulis. infus. rosar. tr. digital.) The hæmoptysis ceased, slight cough and sputa remained, with deadly clammy hands, and dull eyes, to September 15th, when she spat 2 dr. of blood and pus-like matter ; pulse 94, no fever, respiration natural. Sept. 28—Exasperation, rapid breathing, cough and florid hæmoptysis, which recurred.—Death on October 8th.

Inspection.—Little emaciation. The lungs soft, the left chiefly adherent ; sero-sanguine fluid in the bronchia ; air-vessels pervious, in the right lobes a suffused state of the blood-vessels ; in the left lung, at the upper lobe, a cavity which would hold half an orange, prevented by opening into the chest by adhesion to the side, it communicated with the air-tubes ; no pus, no hardness in its sides ;—rapid ulcerative absorption.’

Dr. Hastings erroneously supposed that ‘ this cavity might have become innocent by the formation of a lining membrane ;’ no such membrane, nor any healthy reparative action, ever takes place spontaneously in *this kind* of phthisis, although it does happen in another

mode of ulceration, the result of un-specific inflammatory action. If any medical aid can save such it will be the use of acidulous tonics, and the *inhalation* of CHLORINE. We see a suffused state of the blood-vessels disappear under the use of stimuli in ophthalmy.

§ 2—WITH DISORDER IN THE BRAIN.

CASE XXV.—Short, m. a. 36, a painter, (March 1, 1830.) has been ill for six months, during five of which he had no medical aid; he seems to have had peripneumony at the first; at present *pain* in his *limbs* is the chief subject of complaint, he is emaciated, very weak, coughs on a full inspiration, expectorates a little mucous sputa, some uneasiness at the interior part of the right lung; no fever, no marks of existing inflammation, the pulse low, aspect pallid; asthenia the prevailing character. (S. quininae, tr. opii. co. cm. tr. lyttae. E. canth.) This cure was adopted from the analogy of Dr. Lettsom's cases. Before this, in Feb. 25, he had used calomel, antim. salin. empl. canth. v. colch. v. ipecac. pil. hydr. 18th—Better.

The general circulation is sometimes depressed beyond what is requisite for the relief of a local disease; a diffusible stimulus with a local derivant is then of excellent utility.

March 26th—Cough less, and not now induced by a full inspiration, but he is very languid. April 3rd—Much puriform sputa, (1lb in a day) no pain and he can inspire deeply, a weak low pulse and cold skin at

present, but at times a scalding heat in it; no appetite, tongue clean. (Decoct. cinchonæ, copaiba.) 16th—The disease advancing, low delirium, pulse 120, much pus spat, irregular hectic, no pain. 29th—Extreme emaciation and paleness, occasional delirium, and in the intervals the powers of the mind are low; much cough with viscid opaque globular heavy sputa; tongue coated at the root, a small rapid pulse, no pain complained of, except latterly diarrhœa. (Ipecac. cum. opio, hydr. cm. creta.) May 1st—Death.

Inspection.—56 hours p. m.—Extreme emaciation, a sallow dusky hue on the skin. Heart emaciated, flaccid, and bloodless. In the left sac of the pleuræ some adhesions, and $\frac{1}{2}$ lb of serum. The right lung a mass of horrid disease, no induration or carnification, no mark of inflammatory or any mode of healthy vascular action, full of soft tubercles and ulcerous excavations, in many fetid pus. The left lung exhibited fewer tubercles and cavities, but more of the fleshy induration and congestion of blood; on its exterior also were some marks of inflammation. The abdominal organs were emaciated and flabby; the small intestines reddish posteriorly, from congested blood by gravitation.

Is it a fair conjecture from the appearances in the left lung that the remarkable state of the right lung was the sequel of a primitive state of sanguineous congestion or inflammation; and that the remedies adapted to the relief of this, in the beginning, would have ob-

viated the fatal disorganisation? If the origin is an inflammation it is certainly a peculiar species. To such a form of Phthisis the local stimulus of inhaled Chlorine seems properly adapted; iodine I should apply rather in cases of uninflamed *indurated* lung, such as will be exemplified under the Fourth form.

Dr. Abercrombie has given some important cases of this form of phthisis in the paper above referred to,—in section 3rd, 4th, 5th, and 6th. He thinks the process of the disorganisation may be first slow induration, and then rapid and fatal ulceration; but there is oftener *no induration*.

CASE XXVI.—M. a. 20. (Dr. Abercrombie, Ed. Journal, vol. xviii.) in the previous winter had an indolent phlegmon on the buttock which disappeared. May 1st.—Tremulous and weak, breathless on an ascent, pulse 120. 11th—Slight cough, no pain, no fever. (Miss. sang.)—Blood buffy. 12th—Better, but tremulous and agitated. 13th—More deep hollow cough. 15th—*Delirium*, purulent sputa. 16th—Ditto; pulse 130. 17th—Ditto; little cough;—death.

Inspection.—Right lung indurated; abscesses; a large ragged ulcerous cavity; and lower a tubercular mass. Left lung dark gangrenous like putrid muscle; no tubercles. The right pleura held puriform serum, the left held sanious.'

I suspect that the induration which is found in conjunction with this scrophulous ulceration and gangrene, is a peculiar mode of *hepatisation*, or red consolidation very dissimilar to the scirrhus-cancerous disorganisation seen in the cases under another form of phthisis.

§ 3—WITH AN AFFECTION OF THE ALIMENTARY
CANAL.

CASE XXVII.—S. a. 19, had been ill for five years of severe and protean complaints, designated irregular *Hysteria*, at one time passing into *Mania*, which subsided. She had much suffering at the stomach, always induced after food, and on using any purgative,—with other dyspeptic symptoms, and violent hiccup, but no diarrhœa or vomiting. There had also been *Amenorrhœa*, which was succeeded by a flow of viscid caseous mucus e. vag. The emaciation was extreme, and some hectic latterly. All sorts of remedies had been used by various physicians of great eminence, with little success; leeches always did harm. An *occasional* cough which had existed a few months ago, recurred, with a little salivary mucous sputa, for two weeks before death.

Inspection.—The chest contracted, ecchymosis in the skin, from atony of the capillaries; the pectoral muscles *absorbed*; little fat or muscle visible any where. The belly tumid and hardish. A little serum in the sacs of the pleuræ; the left lung very adherent and posteriorly

very thickly coated with jelly-like fibrin, but without recent vascularity; three-fourths of its interior was hepatised; at the upper back-part of the superior lobe very much indurated, and contained two large ragged ulcers, lined by a dense unvascular false membrane, or layer of unorganised fibrin; around them a few tubercles. A large air-tube was traceable into the the ulcers. No mark of suppuration in the lung. The right lung posteriorly adherent; the anterior-inferior part of its upper lobe indurated, but a few tubercles in it; the other portions had a little of a fleshy appearance. The mucous membrane of the large bronchi and trachea was red. The bronchial glands large and dark, not hard. The splanchnic nerve in the chest sound; from the nervous symptoms it was thought likely to be diseased. The heart was sound. The pericardium held 3 oz. of citrin-colored serum. In the abdomen citrin-coloured serum; its hardness and tumidity was from an enlargement of the stomach and intestines, and the inflation of air; (hypertrophy, and tympanites.) The liver was adherent on the whole of its convex surface to the diaphragm, by old elongated unvascular bands, consisting of dense cellular tissue, as white as down; at its anterior edge was a small spot of consolidated substance. This organ was large, softish, lacerable, of a pale ochry color, variegated with dark streaks, as if from unhealthy blood in the atonic vessels around the larger branches of the venæportæ. Turbid unhealthy bile in the gall-bladder. The spleen small, adherent by old cellular bands to the side, of a raspberry color, softish. The kidneys sound. The stomach very large, much distended by air, its coats soft and thickened; nodules in or beneath its peritoneal coat, like scrofulous

tubercles, with little vascularity; it contained some darkish mucus. The duodenum enlarged a little and soft; the jejunum much thickened, little vascular, distended with air;—the ileum, here and there, of a deep livid vascularity, more so at the edges of the convolutions; its coats generally enlarged, and soft; within its lower two-thirds nearly *twenty ulcers* were found, with elevated, livid, red edges, as large as a sixpence, nearly penetrating all the coats, situate where the livid patches were seen exteriorly. In the layer of mesentery connected with this diseased portion of the gut were enlarged glands, some hard and vascular, and others full of caseous humour or pus; the other layers were less diseased. On the exterior of the end of the ileum was some jelly-like fibrin, and a few nodules like those on the stomach. The middle coat of the caput coli was enormously thickened and hard, its other coats were natural; at the end of the appendix vermiformis was a large tubercle; the transverse colon was small. The ovaries were small, uniformly hard, opaque, not a vestige of healthy organisation remaining. The uterus small, full of cheesy matter which had been secreted from its granular mucous membrane.

1—The old adhesive membranous inflammation of the liver may have been a source of irritation to the diaphragm, and the cause of its spasms.

2—The intestinal disease was the secondary and recent malady, and the immediate cause of death, by inanition;—in its nature a scrofulous affection by which

a part becomes enlarged and softened. (See Dr. Monro's *Morb. Anat. of Alimentary Canal*, p. 302.) The mesenteric disease being less advanced was inadequate by itself to induce fatal atrophy; it was the result of disease in the intestine.

3—The pulmonary disease was of a similar nature and origin to the intestinal, and probably existed prior to it. That such serious disorganisation should exist in a latent or passive state is most remarkable; yet there was in the last year of life no evident disorder in respiration, except what seemed to arise from nervous agitation; and the cough was so slight as not to attract the notice of the nurse.

4—The affection of the uterus is an instance of scrofulous inflammation in mucous membranes. The amenorrhœa was not a sympathetic affection, as it usually is in phthisis.

5—The extent of the tuberculous ulcerous affection demonstrates a constitutional origin.

6—Nothing in the morbid appearances indicated the use of anti-inflammatory, depressant, evacuant remedies. Might not such as are tonic and sedative to the vascular system, as zinc, lead, iron, nitrate of silver, &c. be useful in such maladies?

7—A vast extent of organic disease may subsist under the semblance of nervous and hysterical disorder. The greater part of nervous affections originate in morbid vascular action or disorganisation. The relation of mania and hysteria with disease in the digestive organs as here exemplified deserves serious consideration.

8—This form of scrofulous tuberculation, with the *softening* and enlargement of organs, is, in nature and origin, different from that tuberculous affection which Dr. Baron has so well illustrated, which is a *scirrhoucancerous* disease, and found in a dissimilar constitution to the former.

9—The exudation of jelly-like fibrin on serous membranes, or into the substance of organs, similar to the sily portion of the blood in weak habits, is not invariably attended by sthenic inflammatory vascular action; it may originate in a peculiar chemical state of the blood, such as probably forms a part of the scrofulous constitution.

See also case XXXI. § 6.

CASE XXVIII.—Frill, m. a. 26, a shoemaker of a sallow pallid strumous aspect, states that he has been ill for four weeks, (*May 16, 1827.*) The present symptoms are cough and quick respiration, vomiting, a white

tongue, a quick irregular pulse; palpitation of the heart, dropsical swelling of the feet, the bowels lax. (E. canth. emetic. alterant.) 18th—Vomiting and perspiration from the medicine, with relief of pain and cough; the appetite good, costiveness. (Hydr. cm. creta. rheum, ipecac.) 20th—Purged by salts, and feels better, but the ancles are still swollen, and quick breathing remains; the urine was turbid and red, it is now clear. (Acid. nitric. mist. ammoniaci, digitalis.) 23rd—Less chilliness and perspiration; much weakness, respiration noisy, with a sense of choking on reclining; no cough or fever. 28th—Increase of sweats, and weakness, a pallid face, white tongue, thirst, red urine, respiration very short, pulse 125 wave-like, no pain, hectic at night. (Cr. acid. nitric. calumba, victus ex carne.) The disease began six months ago in short breathing and a dry cough; he became worse on taking cold on April 16th, when he was bled once. *June 4th*, Respiration less quick, pulse 110, stronger, tongue still white, no hectic, a good appetite. (Cr. med. ambulare sub dio.) Pain in the side, no cough. 16th—Better. 20th—Pulse quick and irregular, a short cough, white tongue, some *colic*, urine red, respiration rapid and low, yet he says he is better. (Acid. nitric. digitalis.) *July 6th*—The legs swell, pulse rapid, weak; a full inspiration easily made, and respiratory sound heard well by the stethoscope; no pain. (Cr. med. E. C.) 26th—Face very pallid, pulse very rapid, cough easier, but he is breathless on exertion; pain at the descending colon, two stools a day, nausea on walking; a tremulous tongue, with extreme weakness; no rigors or hectic, a little appetite, and he eats meat; mind sanguine. *August 12*—Pain at the bowels much breathlessness and

langour, *no cough*; severe chilly rigors and hectic sweats, no appetite urine red. (Acid. nitric. calumba.) 15th—A fluttering pulse, sanguine mind, a milk-white tongue, no fever or pain, but he has had some cholic and diarrhœa, and urgent vomiting. 28th—He sat up until night, when he retired to bed seeming to be better: awoke at 5 a. m. became faint, and died quietly a little afterwards!

This is an interesting example of a most insidious and fatal form of consumption, obviously different in its rise and progress from the common inflammatory phthisis. The irregularity in the symptoms—the absence of expectoration—the subsidence of the cough—the deceitful amendment in June, which was so decided that he would have resumed his labor but for my prohibition—are very deserving of notice; and suggest a useful caution in prognosis. The progressive exhaustion of the vital functions; the hectic, which however was never high, and emaciation, the breathlessness and milk white tongue—showed unequivocally the existence of a disease essentially mortal. The apparent conversion of disease from the lungs to the stomach and intestines, a fortnight before death, was the immediate cause of the fatal exhaustion.

Mild acidulous tonics were certainly of utility; probably the local abstraction of blood was improperly omitted.

It can scarcely be doubted that the lungs were in a state of phthisical disorganisation, containing scrofulous tubercles, and even ulcers.

CASE XXIX.—Bunster, f. a. 34, *May* 1824, when first seen complained chiefly of debility, and head-ache, with strumous ulcers on her fingers. (Magnes. rheum, zing. calumba.) After this some colic and diarrhœa came on, which opium relieved. 16th to 24th—Cough first observed; extreme coldness, thirst, aphthæ, diarrhœa, breathlessness, pulse 120, hectic sweats, soreness of the throat, and change of voice. No sound of respiration in the right lung by the stethoscope. Hæmatoxylon and opium taken, without effect on the bowel complaint.—She died in June—her health had been in a declining state for ten months.

Such a case might be mistaken for a primary affection of the stomach and intestines. It is very remarkable that various modes of pulmonary disorganisation should exist in a latent state, until the sudden accession of colliquative diarrhœa announces the danger, and precipitates the unsuspecting patient into the grave!

§ 4—WITH DISEASE IN THE FEMALE SEXUAL ORGANS.

CASE XXX.—Allen, f. a. 39, on August 29, 1829, had a natural parturition with little hemorrhage, after which she was affected with shivers, vomiting, fever, pain at the belly, head and limbs. She used some ol. ricini, which procured a good stool. On the 31st, and to the present hour, 9, a. m. Sept. 1st, severe pain with tenderness has continued; some epistaxis, which relieved her head, and much vomiting; costiveness for 36

hours. The tongue is loaded, the pulse 100, tense, after the loss of 20 oz. of blood;—the belly is tumid and tender at the seat of the ascending colon. She passed urine well yesterday; some lochia to-day, no uterine pains, but tormina in the belly; her aspect is good.—(Calomel $\frac{1}{2}$ scr. magnesiæ 1 scr. hirudines xiv. fots, cataplasma, salina.) The blood is sisy, its coagulum firm. *Evening*—Pulse 104, relaxed, but bounding; tongue moister, less loaded; less pain after leeches; a good stool. (Calomel 5 gr. cm. p. antim. sulph. magnes.) 2nd—Three fluid stools; pain at stomach after the medicine and some gruel, but not after tea; in other respects she is easy and feels better; the belly smaller, tongue white and coated, pulse 120, soft, less sickness. (E. canth. enema, acet. ammon. digital.) 3rd, In the night, a shiver and sweating after it; two good stools, pulse 80, regular, soft! no appetite, no sickness; no pain; the belly has subsided; scanty lochia for two days, no milk in the breasts. *Evening*—pulse 100, not firm, tongue loaded, skin cool; she feels comfortable, and has voided another stool. (Repr. med. st. calomel, antim. scammon. cm. rheo.) 4th—Pulse 90, soft, tongue cleaner, bowels free, a *small cough*. She uses little medicine, desires fowl-broth; no lochia, no pain.—(Enema.) 5th—Last night some mild *delirium*; a little cough remains; she says that she is better, but her look is stupid and vacant, some fever. (E. canth. nuchæ. calom. jalap. ipecac. liq. ammon. acet. tr. scillæ.) 6th—Purged of fetid bilious stools, says she feels better, but her aspect is low and pallid; no pain, pulse rapid, soft, tongue loaded, urine free, no lochia, breasts devoid of milk; the mouth became sore from mercury yesterday; an appearance of icterus; the chest and belly

bear pressure well, bowels natural. (Ipecac. scammon, magnes. salina.) Evening—Pulse and respiration very rapid, cold dry skin; countenance stupid, face pallid and cold, at times red, tremors, a dry brown tongue.—Is it not a typhoid puerperal fever, from the absorption of putrid lochia?—A gentle cough, no pain, except at the neck from the blister. (E. canth. capiti raso, calomel, 20 gr. vini hispan. 1 oz. o. h. enema terebinth.) 7th—A good stool passed after the enema, and two since in bed; pulse 130 weak, tongue less loaded. She desires tea rather than wine, of which 2 oz. only had been used. In the night her respiration seemed like that of one dying; much prostration. (Sulph. sodæ, spirit ammon. aromat.) Evening—Similar state.—(Cardiaca, enema terebinth.) 8th—A restless night; animal faculties low, the tongue soft and clean; pulse less rapid but weaker, some good stools, some lochia, skin more natural. (Jusc. bovini, vinum, spt. ammon. arom.) Evening—A full quick pulse, respiration rattling, senses low. She used 1lb of wine, and spt. ammon. arom. 1 oz.—9th—Death at 2, a. m.

It was afterwards learnt that she had complained of pain at the head, and right side, betwixt the Ilium and ribs, for two months, which was worse on coughing or exertion; for a fortnight before her delivery, which was premature by nearly four weeks, she had severe cough with *mucous* sputa; she was also observed to be pale, and at times flushed, and low in spirits, from feeling unwell; yet she persisted in her work as a washerwoman, until three days before her confinement. Uterine pains came on in the night of the 28th, and at 5, a. m. of the 29th, the child was born with great

ease; the placenta came away instantly, without hæmorrhage.

Inspection.—32 hours p. m.—No emaciation, the skin and subcutaneous fat of a dusky deep yellow color. Some adhesion of the pleura beneath the sternum; the right lung anteriorly pale, crepitant; posteriorly livid and turgid; internally dense from the congestion of dark blood; on the exterior of the upper lobe three spots were seen, one an inch long, as if a thin layer of the lung had been corroded, and fibrin deposited, appearing like a dry gangrenous eschar; within this portion was an *ulcerous gangrenous cavity* the size of a pigeon's egg, full of fetid black pus; the contiguous portions of the lung forming its walls were soft and full of dark blood. The left lung was anteriorly pale and softish, posteriorly dense from congested blood; it contained two small cavities, like the excavations of cystic tubercles. The pericardium was very vascular, and held 3 oz. of serum, its veins large and flaccid; the heart soft, containing a little darkish serous blood. The bronchial glands softish, dusky, not very unnatural. The mucous membrane of the bronchi vascular, as if from atony and dilatation of the small vessels. Some mucus in the lungs. Much air in the cavity of the chest, and in the pericardium. The peritoneum abdomenis natural; no effusion of serum. The liver and spleen healthy. The gall-bladder flaccid, containing much dark, thick, sandy bile. The kidneys pale. The stomach exteriorly healthy, but its mucous coat pulpy, exhibiting many small *ulcers*, as if by abrasion, with a livid base; many other portions presented dark, fetid, vascular patches, as if from relaxation of the vessels,

and fluidity of the blood. The intestines healthy and empty. The uterus was contracted, at its right side adherent to the pelvis. The right ovary large, black and soft, full of fetid black pus, as if from suppurative gangrenous action; not a vestige of its natural texture remaining; firmly adherent to the uterus, one half of the depth of whose substance was here soft and black, as was also its cervix; interiorly at the fundus was a soft, black, fetid tuberculous mass, which seemed to be a gangrenous relic of the placenta, elsewhere its substance entire, exhibiting more discoloration than softening; the whole internal coat was pulpy and black. The left ovary small; its exterior tunic hard, opaque, like leather; little remains of its natural texture within. The blood in the body was fluid, dark, and watery, seeming to contain no healthy fibrin.

Similar disorganisation is here seen to have existed in the right ovary, the fundus of the uterus, and the right lung; manifestly, from the gangrenous matter and air extravasated, of an adynamic malignant character, there were no marks of sthenic inflammation. Is there not something gangrenous or adynamic in all exquisite forms of puerperal fever? The uterus in Allen could have had little power of vital contraction, and none of of natural secretion. Was not this a disease of long formation? Her child was puny, ill-nourished, of a dingy yellow hue; an eight-months' fetus—it died to-day.

Such extensive pulmonary disorganisation could not have been suspected from the symptoms; there was certainly very little cough and no sputa after her par-

turition. The debile state of her animal faculties was characteristic. No medicine could have saved her ; in a similar case, however, I should inject ol. terebinth into the uterus, as well as use it by the mouth. But it deserves serious consideration whether the cordials might not have contributed to the ulcerous inflamed state of the stomach ?

A case very similar to this has been related by M. Tournelle of Paris, in 1829.

See also case XXIV. § i.

§ 5—WITH DISORDER IN THE URINARY ORGANS.

CASE XXXI.—(Abridged from the *Lancet*, vol. II. Oct. 23, 1830-31, No. 373.) E. G. m. aged 26, August 5th, 1829, exhibited some fever and pain in the sciatics and at the right lumbar region along the ureter, with sickness; the pulse below 100, not strong, urine scanty with a deposit of uric acid, the bowels purged by medicine; leeches had been used. A small bleeding exhausted much; the blood was un-inflammatory.—6th—A remission. 7th—Return of pain and sickness. (Miss. sang. hirudines xii. ventric.) To the 17th, a remission, except that vomiting continued, for which saline effervescents were used. 18th—Pain at the right kidney, which was relieved on the use of leeches. 22nd, Relief; then severe rigor, succeeded by heat and sweating. 23rd—Two agueish fits. 24th—Only great weakness. (Quinine used.) Up to this *no cough* or dyspnoea was observed, and the pulse was below 100. 25th. Sudden easy coughing, and expectoration of a large quantity of greenish fetid pus tinged with blood; pulse

120, wave-like; countenance anxious, skin and eyes yellow and glassy, some lethargy; yet he was sanguine of recovery; no dyspnœa unless he was disturbed; a slight cough with sputa continued. At the inferior part of the right lung no respiration could be heard with the stethoscope, but a slight rale crepitante; dulness on percussion. (Quinine used.) Death on Sept. 3, nine days after the first cough and sputa!

Inspection.—(12 hours p. m.) At the right lung were old pleuritic adhesions; the upper lobe sound, the lower filled with dark bloody serum of a gangrenous odor, contained a ragged cavity the size of a walnut, lined by a firm membrane, filled with dark grumous fetid matter: the lung here was adherent to the diaphragm. The left lung adherent, otherwise sound.

This very important case well exhibits the symptoms characteristic of the kind of pulmonary disorganisation which is found in the present form of plithisis. Laennec indeed distinguishes the acute and rapid from the chronic gangrenous ulceration, which latter he regards as more essentially related to consumption;—but it is very probable that disease had existed in this case before the cough was noted.

§ 6—WITH A LARYNGEAL AFFECTION.

CASE XXXII.—Frost, m. a. 40, (August 27, 1829,) presents much emaciation, with cough and tracheal irritation, little fever. (E. canth. mist. ammoniac. hyos-

ciam. digitalis, calumba.) 30th—No pain, the larynx enlarged, much cough and hoarseness, a quick tense pulse, dry tongue, red urine, muco-purulent sputa.—(Cr. med. et liq. ammon. acet.) Sept. 4th—Colic and diarrhœa. (Opium cum creta.) 5th—Death.

Inspection.—24 hours, p. m. Strong pleuritic adhesion; large ulcerous abscesses in the lungs, no distinct tubercles, no induration; the interior of the bronchi natural. The Larynx was overlooked. In the pericardium 3 oz. of serum. In the heart large clots of fibrin. The liver and spleen healthy. The mucous coat of the stomach soft, elevated, and vascular. Similar appearances, and an ulcer, in the duodenum. The interior of the colon morbidly vascular.

LITERARY AND DIAGNOSTIC HISTORY OF THE SECOND FORM.

VAN SWIETEN mentions the case of a musician who was able to perform the day before his death with wonderful execution!

BONETUS, VALSALVA, and LIEUTAUD, found ulceration in the lungs without pain or cough!

CULLEN remarked that ‘cough may be little observed, but the breathing is hurried, and there is languor and emaciation; and that ulceration is not always attended by hectic.’

HEBERDEN found the lungs corrupted, yet no blood was spat, no pain at the chest, no difficulty of lying on the side ;—‘ spiritus creber, motus arteriarum concitatus, signa periculosissima.’

TISSOT remarks, under measles, that many died of suppuration in the lungs and a purging without pain.

AVENBRUGGER, (Forbes’s translation, paragr. xxviii.) gives a most important notice of this obscure form of consumption ;—‘ often were there cases of fancied convalescence from fever, hardly any cough or dyspnœa, or *any other symptom of disease but slight irregular fever* ;—a preter-natural sound over the chest, emaciation, dropsy, and death.—The real seat of disease unknown to the last !’

To this form applies the remark of Pouteau, that the ‘ worst consumption is free from pain.’

Dr. M. HALL’s history of ‘ malignant fever, with affection of the chest,’ truly designates this form :—great anxiety in the countenance, rapid movement of the nostrils, irregular agitated respiration, distressing cough,’—or, at times however, very little. Such is the state of the system when the case is near the fatal issue. It is also characterised by HUXHAM, in his admirable description of malignant Pncumonia ; and by Dr. M. Good, Nosolog. physiol. p. 173 ; and by Morton, Phthisiologia, iv. 41.

Dr. T. YOUNG observed that ‘ emaciation and cough may be slight in phthisis.’

BAYLE's 'ulcerous species' belongs to this form ;—the symptoms are 'early cough and sputa, consisting of strings of blood, pus, and ropy mucus, which become fetid ; hæmoptysis, high and constant hectic.' Many of the above cases indeed are very unlike this description, which applies more to the First form ;—probably such acute symptoms are more common in the climate of France than in this country. Bayle seems to regard *Hæmoptysis* as the distinctive mark of this species from his tuberculous consumption, but it is not a constant symptom. Some cases in this and the First form closely resemble one the other, while they are very distinct from the subsequent Third and Fourth forms. The history of Bayle's 'Melanotic species' somewhat resembles the present form ;—'symptoms obscure, great emaciation, slight cough, viscid floating whitish sputa, pulse a little quick, edema ;'—but its *chronic* character and the state of the pulse distinguish it. It is probable however, that some melanotic cases belong here, and others to another form ; and that melanotic tubera are of different kinds pathologically regarded, as well as the common pulmonary tubercles.

LAENNEC remarks of the soft Cancer or Brain-like tumor in the lungs, that death happens by suffocation before phthisical symptoms ;' but the existence of all the generic symptoms in an exquisite degree is not

necessary in order that a case be placed under phthisis; otherwise many cases of tuberculous lung must be excluded from this genus. He distinctly recognised the present irregular asthenic form;—‘the *symptoms not accordant with the nature of the sputa, or the extent of the disorganisation; hectic, emaciation, and even death before expectoration.*’ His characters of Gangrene in the lung—which may be either an acute disease, a gangrenous inflammation, belonging to the nosological class ‘*phlegmasiæ,*’ or a cachectic phthisical affection—are very descriptive of this form; the ‘progress rapid, prostration, mild cough, sputa copious, then scanty, easy, fetid, green; death by suffocation.’ See cases xxiv. and xxvi. ‘A second variety, defined like phthisis; the early symptoms those of slight inflammation but great prostration, sputa green, fetid, thin, bloody; a leaden countenance; then hectic, but less than in ordinary phthisis; rapid emaciation—mistaken for true phthisis. Death may happen before emaciation.’—It is a disorganising affection of the lung with phthisical symptoms, and therefore it is to be regarded as genuine phthisis. May it not be said, with all reverence for so great a name, that Laennec has too much disregarded the distinction observable in the *living forms* of consumptive disorders, while he has made the varieties in the morbid appearances exclusively the base of his arrangement?

DR. ABERCROMBIE, in the *Edinburgh Journal* vol. xviii, has distinguished this form more prominently than other British authors before him;—‘an important modification of phthisis, severe at the outset, fatal in three weeks, remarkably different from ordinary tuberculous consumption; the morbid appearances are dark induration, and a cavity lined by ragged ulceration,’ (i. e. bounded by ulcerous-gangrenous lung,) ‘without a lining membrane.’ Again, in § 5, ‘affection advanced and slight or no symptoms;—condition of the lung various; wasting, a quick pulse, obscure hectic, purulent sputa only shortly before death; in some no cough or sputa.’—See case xxii.

Again, ‘obscure, asthenic, uninflamatory symptoms at the outset, and often throughout the progress.’ He says that ‘this variety would admit of *active* cura in the acute stage, with more success than the tuberculous consumption.’ This may be true of such irregular consumptive cases as are the result of inflammation, which belong to a different pathological species, although their progress is latent and rapid, death happening prematurely from an accidental affection, (See the cases under Form iv.) but it is doubtful if an active anti-inflammatory treatment is at all proper in the cases above narrated; Tonics, with Sedatives, and Revulsives, are here indicated.

LOUIS, paragr. 395, remarks that ‘there is *more* fever and *deranged digestion* in latent phthisis; and that hæmoptysis before cough is from latent tubercles.’ But in some cases there is little fever. Par. 394 ‘In 123 cases of phthisis, eight were instances of latent tubercles, i. e. subsisting six months, or two years, before cough; in one case they existed some time before any symptom of importance; in another instance there was fever, wasting, and anoxexy before cough and sputa.’

The STETOSCOPE is a most important means of ascertaining the rise and progress of the present mode of pulmonary disorganisation; and its indications will, as in case xix., awaken the physician to wholesome vigilance, where the negative signs presented by the state of the constitution, and on percussion, might lull him into unsuspecting security.

THE THIRD FORM.

THE CATARRHAL PHTHISIS.

THIS species is chronic, remittent, connected in its origin or progress with inflammation in the lung or air-tubes; it is not seen in persons of the sanguine nervous temperament, but in the phlegmatic and melancholic. It comprises TWO ORDERS of cases—the

genuine idiopathic or simple, and the spurious complicated or symptomatic. In the former the pulmonary affection is primitive, and the proximate cause of death; in the latter it is minor, and secondary on organic disease, of various singular and interesting forms, in other parts.

In this class the disorder is essentially of the *bronchial membrane* only; the lung not being indurated, ulcerated, or tubercular. The secondary order is the more numerous; simple chronic catarrh being seldom fatal without organic disease in some of the abdominal viscera. *

The cases of chronic *bronchitis* herein comprised, are taken to be truly consumptive—the cachectic disorder being more than a simple *chronic* inflammation, and exhibiting all the generic symptoms which characterise the phthisical disorganisation of the lungs, although with a variety sufficient to constitute a distinct species of the genus. The individual cases exhibit in various proportions the typhous and hectic aspects; and admit of great relief, even where a fatal issue is ultimately inevitable.

The varieties in the morbid appearances observable

* The term spurious should be confined to the cases in chap. III. which seemed to be consumptive, but terminated in recovery.

in different cases, are 1st—ulceration in the mucous membrane of the trachea or bronchia; 2nd—a vascular granular state of the air-tubes, with an accumulation of mucus, pus and serum in the bronchial cells.

This form is truly designated *catarrhal phthisis*; for in the mode of death it resembles diabetes, and other profluvial disorders. But the decline is probably not so much from the loss of the humor by expectoration, as from the irritation in the system, and the interruption of a vital function, particularly the conversion of the chyle into blood.

ORDER I.—CASES OF THE SIMPLE IDIOPATHIC
AFFECTION.

Dr. BADHAM, on Bronchitis, p. 72, has given a good case of this affection with puriform sputa, which was relieved during the summer, but fatal by an attack of acute inflammation in the winter. *Inspection*.—The bronchia only inflamed; the lungs sound.

DE HAEN also has recorded cases of ‘copious purulent expectoration, wherein no disease was found in the lungs after death.’

MORGAGNI found ‘the lungs sound after true purulent sputa.’

Dr. ABERCROMBIE, Edin. Journal, vol. xvii. § 2, has stated a case of ‘cough and bloody mucus sputa; in which no morbid appearances were visible in the lungs.’

To this form are to be referred Ruysch’s cases of ‘dyspnœa, with cough, and slight fever—vesiculæ pulmonis oppilatæ et expansæ;’ which he says is more common than has been supposed.

LAENNEC’S cases of *Emphysema* of the lung are similar.

Order II.—§ 1—WITH AN AFFECTION OF THE
HEART, OR ENTHORACIC GLANDS.

CASE XXXIII.—James, a. 70, a Butler, of temperate habits, (Feb. 16, 1826,) afflicted with strangury, pain at the loins, hips, belly, head, chest, neck, and arms; a clean dry tongue, red urine, no appetite, costiveness; he sleeps best on the back, and when inclined towards the left side. A tumor is seen emerging from beneath the right of the sternum near the trachea, soft, diffuse, pulsating, resistant, tender. His attention was first drawn to it a month since when it became painful; since which the pectoral complaints have increased. The pain at his back, with dysuria, was remarked about seven weeks ago. He ascribes his malady to cold; he never had a sprain, but six weeks ago he was wont to swing his arms violently for a pain at the shoulders.—His breathing is noisy, but a full inspiration is not painful. The chest is well formed. (Miss. sang. alkali. laxantia.) In *May*, he was found to be dying in the

Work-house, as the Surgeon supposed, of phthisis.—Death occurred in June.

Inspection, as reported by Mr. Baldy.—The lungs not disorganised; a large softish white *tumor* filled the anterior mediastinum, and was attached to the pleura. The heart and blood-vessels were healthy—much serum in the chest.

This case is minutely described from its having been suspected to resemble Aneurysm of the Aorta.

Dr. HASTINGS, on *Bronchitis*, p. 181, has described a very similar case, from a tumor compressing the trachea and bronchi.

HEISTER also, in his *Anatomy*, gives the case of a ‘Boy who died hectic, in whom the *Thymus* was found scirrhus.’

CASE XXXIV.—Mills, f. 13, (December 29, 1827,) has suffered for three months from an exacerbation of palpitation and paroxysms of pain at the heart, attended by extreme coldness but never complete syncope; latterly with cough, and a sense of suffocation, which renders her unable to lie on the left side. She has had repeated attacks of a similar nature during the last three years, and been affected with *rheumatism*, which is a family complaint. She has also had, in the last fifteen days, pain in the hind-head, back and limbs,

with vertigo and occasional convulsions, since using digitalis and narcotics. The pulse 128, tongue clean, occasional morbid appetite, interrupted by nausea and vomiting; sleep disturbed, urine now clear, at times red and turbid; a pallid skin, with copious sweats.—The left chest is protruded. She rejected blood-letting, but has used leeches and a blister. (Acid. hydrocyanic et nitrici. E. canth. cm. ung. hydrarg. antim. camph.) Jan. 1, much pain from the ointment; less pain at the heart, but severe at the head, less vertigo, occasional breathlessness. Jan. 3—Return of pain at the heart, with strong pulsation; head-ache and costiveness; pulse 120, regular. (Cr. med. st. mannam. cm. rheo.) 7th—The mouth sore by the medicine; a rash on the belly, other complaints abated. 11th to 23rd—Much relief, but pain beneath the right scapula, and the rash remains, the tongue white. Repose enjoined. No medicine. Feb. 20—Cough, with mucous sputa, suffocation, palpitation at the heart and epigastre, head-ache and perspiration. (E. c. mist. ammoniaci cm. scilla, digital. et opio.) 26th—Severe cough, flushed face, the aspect of decline. By the stethoscope a strong *jarring* action of the heart is heard throughout the chest, respiration natural. (Acid. hydrocyan. nitric. tr. opii.) March 26th—No medicine used for three weeks; eight days ago an attack of pain at the epigastre, distinct from the former pain at the heart, which is absent; vomiting for four days, tenesmus after costiveness, dropsy of the legs, pulse very small. (Acid. hydrocyan. calumba. mist. camph.) 27th—*Acute* pain at the stomach; death gradually completed at night; senses entire to the last hour.

Inspection.—(30 hours, p. m.)—The body pallid, emaciation; the liver was felt below the ribs, the left chest protruded. The peritoneum held 6 oz. of serum, with flakes of fibrin; the peritoneal tunic of the intestines a little vascular; the liver sound, but detruded; healthy bile in the gall-bladder. The mucous coat of the stomach vascular and rugose; mucus, chyme, and air in it. The mucous coat of the Duodenum very vascular, and granular. The lungs sound; the interior of the bronchi vascular; a pint of serum in the chest. The heart so enlarged as nearly to fill the chest; pericardium adherent, and pallid; the muscular substance of the heart vastly thickened, and hardish, more so in the left ventricle, its cavity also was larger than that of the right; its inner tunic and valve sound; much grumous blood in it; no polypi; the blood-vessels healthy.

The small pulse is from the irritability of the heart, not always from a diminution of its cavities, or an osseous contraction of its valves.

The blood here was in a dissolved state, its vital coagulability being lost, yet an action of morbid growth allied to inflammation was going on. In such cases large coagula of fibrin are usually found in the heart, particularly when death ensues more suddenly. The hydrocyanic acid was of essential benefit. The pain and vomiting in the last days of life was from inflammation in the stomach and duodenum, which was the immediate cause of death. The extremely small and

feeble pulse deterred me from the use of evacuant remedies, which might indeed not have postponed the fatal issue; but the cordials were manifestly improper.

CASE XXXI.—Pearse, m. a. 42, (Feb. 9th, 1831,) a sailor, of intemperate and idle habits, has been ill for six months; at first he had cough and spitting for a month, which subsided without medical aid. On Christmas eve last he spat a cup-full of blood; blood was then abstracted by a Surgeon-Apothecary, who did not see him again. Some medicines were afterwards taken from a Quack; cough and sputa, not copious, remained. He has now a sallow anxious countenance, with cough, dyspnœa, and occasional hæmoptysis. It was his habit nine months ago to eat only a potatoe and some bread in the day—spirits being his chief aliment. March 21, Hæmorrhoidal tumors painful; much dyspnœa, some cough and viscid sputa, some pain at the chest a few days ago; recumbent posture untenable; pulse nearly gone, much anxiety and sleeplessness, costiveness, no dropsy, no fever. At night he eat a beef-steak, and died from suffocation in five hours. The cura to March 23rd, consisted of Miss. sang. 10 oz. empl. canth. duo. emp. picis cum antim. tart. pil. hydrarg. scilla, ipecac. digitalis, colchic. hyosc. ether. nitric. antim. tart. cathart. copaiba ad anum. quinine.

Inspection, 12 hours p. m.—The body very warm; no sugillation, but black dissolved blood issued from the incised integuments and muscles. The peritoneum, thickened and opaque, containing 10 oz. of serum. The left lobe of the liver extended for two inches below the

ribs; the whole organ was enlarged and hardish; on a section of the left half a dark nutmeg structure was seen, as if the sanguine-vascular portion was turgid; the back part of the right lobe was more natural. Dark bile in the gall bladder. The stomach small, its muscular coat enlarged, the veins betwixt its peritoneal and mucous coats as large as a crow-quill; the mucous coat like scarlet cloth, thickened, rugose, granular, containing viscid-yellow-brown acrid mucus. The intestines were very small, their coats thick; the valvulæ conniventes of the mucous coat intensely red, covered with acrid bilious mucus; the peritoneal membrane of a diffuse florid vascularity. The omenta vascular; the mesentery large and vascular. The pancreas large and hardish. The spleen very small, hard, and dark. All the digestive organs showed severe marks of vascular excitement, and constant contraction;—the sad effects of habitual drunkenness! There was no chyme seen; the last meal must have been digested. In the sacs of the pleuræ little serum; some in the pericardium. The right lung unadherent, turgid with serum, mucus and air, carneous and vascular at the thick part of its upper lobe; the interior of the bronchi vascular. The left lung similar to the right, but not carneous; its air-cells and cellular tissue dropsical. The *heart* as large as a bullocks; on the under surface of the *left* ventricle an opake jelly-like spot, as if it had been the seat of inflammation; its muscular substance and cavities vastly enlarged; the right less so. All the cavities and the large vessels, engorged with black grumous blood.—The aorta and pulmonary arteries very large, inelastic like leather—no osseous granules; the valves sound.

The disease in the aorta may have been the primary affection in the chest : the enlargement of the heart was from idiopathic inflammation, by the constant stimulus of spirits, and also from the difficult transmission of the blood through the aorta and its abdominal branches. The pulse did not indicate the state of the heart.

The morbid condition of the lung was secondary, and the effect of obstructed circulation in the heart.

Alcohol seems to effect a dissolution of the blood ; its albumen is coagulated, and the serum extravasated on the circulation being impeded ; the glandular organs become indurated, the hollow muscular system contracted and morbidly vascular.

The dropsy of the lungs which was the chief morbid appearance in them, was not indicated by external dropsy.

§ 2—WITH DISEASE IN THE ALIMENTARY CANAL.

Dr. HEBERDEN found ‘all the marks of phthisis, except bloody and purulent sputa, in a woman, in whom the lungs were sound, but the glands of the mesentery scirrhus.’

See Dr. Hastings’s case xix. p. 358, of ulcerated, thickened stomach, with vascular thickened bronchial membrane.

CASE XXXVI.—Barnes, m. 55, an office-keeper, of sober habits, in September 1824, suffered from cardialgia and pyrosis, for which alkali, opium, and eccoprotic medicine was prescribed. April 21, 1825, in the sixth week of more severe illness, for which he has been bled once (five weeks ago) and salivated by mercury, being supposed by the medical attendant to have a liver complaint. He has now pain at the loins, and lower limbs, cough with copious thin salivary sputa, nausea, a dry furred tongue, red blood-like urine, with much pink cretaceous sediment, pulse small and quick. (Narcotica sedantia, alkali; uva ursi, pediluvium, jusc. bovini.) 25th—Severe cough, and spitting, pain beneath the scapulæ, at the precordia, and right hypochondre, severe on pressure, and on the use of solid food; hard swelling at the right of the epigastre, and the right ribs seem to be protruded; urine as before, dark slimy stools, nausea on using medicine, pulse 112 weak, cold perspiration at the extremities, tongue moist, white. (Ung. hydrarg. camphor. soda cum magnes. et rheo. extr. sarsæ et conii,—rice, coffee.) 29th—The symptoms remain; stomach oppressed by food or medicine; countenance sunken. (Lin. anodyn.) May 2nd—Severe pain at stomach; vomiting and pyrosis, vertigo on the erect posture; pain at the back relieved by the liniment; black slimy stools obtained by magnesia and jalap, after costiveness; much debility, he respire without effort, a sense of suffocation on using the camphored ointment, urine as before, he invariably feels worse on food, the epigastre is pustulous. (Interm. med. st. mist. camphor. magnes. cum rheo.) 3rd—Death. He had recently used Ung. hydr. mitior. camph. 2 oz. without

its affecting his mouth, but the pulse and stomach seemed to be debilitated by it.

Inspection—30 hours p. m.—The abdominal muscles were much thickened at the epigastre, which made, in part, the tumor there; 1 oz. of serum in the peritoneum. The liver healthy, except at its inferior thin part which was hardish and green, being stained by the bile; the spleen healthy. The whole pyloric end of the stomach was vastly indurated and enlarged; the pylorus however could admit a finger; the morbid structure was chiefly situated in the musculous glandulous tissue, in its aspect very like a scirrhus mamma; on the mucous coat were darkish red fungoid tubera; *no ulceration*; the cardia healthy. The duodenum interiorly granular and darkish. There was healthy bile in the gall-bladder. The kidneys were preter-naturally vascular, but the mucous membrane of their pelves was healthy. The examination of the lungs was unfortunately omitted.

This is not a singular instance wherein disease of the stomach has been mistaken, and mistreated, for a liver complaint.

There is an interesting and not unfrequent connection betwixt disorder in the stomach and lungs; most cases of scirrhus and cancer in the digestive organs, are attended by cough &c. before death. The pulmonary affection is often more than a simple catarrh; it then belongs to another form of phthisis.

CASE XXXVII.—I. U. a. 46, a miller, (Dec. 1822.) for a purging, after syphilis, six weeks ago used brandy; he still has diarrhœa, which is worse at night, without pain, much coldness, pulse 80; emaciation, dropsy of the right leg. Dyspepsia and hypochondrias were the chief characters at first. He used infus. cinchonæ in aq. calcis, which made him thirsty. Occasional purging remained throughout January, with increasing weakness, emaciation, coldness and softness of the flesh, and a loaded tongue; but little pain or fever. (Hirudines, pilul. hydrarg.) Feb.—Extreme atrophy, some hectic, less disorder in the intestines, a pain at the navel which had remained four months was removed by a blister; the stools bilious and of a good consistence. (Digitalis, conium.) The pulse and respiration then became very low, and he had cough with profuse mucous sputa; in the former part of the day he was very cold, then severe hectic ensued; occasional tenesmus, loss of appetite, the tongue inveterately furred. (Tepid sponging, wine whey, copaiba.) At length hoarseness and soreness at the larynx followed, and death shortly. He had used hydrarg. cm. ipecac. for a long time; and went into the country, with little benefit.

Three stages were observable in the malady; 1st—a bowel complaint; 2nd—debility, and emaciation; 3rd—hectic and pulmonary catarrh.

Many cases of severe chronic bowel complaints which have been materially relieved by medicine perish from an acute or chronic pulmonary affection. There is a

remarkable sympathy among the several mucous membranes of the body, whereby they exhibit an alternation or 'coincidence of disease.

§ 3—WITH DISEASE IN THE LIVER, SPLEEN, PANCREAS,
AND URINARY ORGANS.

Dr. HASTINGS, page 177, has well described an interesting case of chronic disease in the liver, 'co-existent with bronchitis; which was not detected before death.'

In another case, page 348, with dreadful head-ache and nausea, which was relieved by brandy; the liver and spleen were softened, and the bronchia ulcerated.'

In the Edinburgh Medical essays is a case finely drawn by Dr. Barry, of an abscess in the liver penetrating the lung.

Dr. HOME, in Medical facts, &c. page 151, under the term humid asthma, has a case of suppurated liver, which might have been saved by puncturing the side.

CASE XXXVIII.—Mr. H. a. 52, (April 12, 1826,) who had been a respectable farmer, but having suffered losses, acquired intemperate habits, now presents a hard defined potatoe-like tumor at the navel, not unlike an infarcted colon, with strong pulsation of the abdominal aorta; he has hoarseness with some cough, a loaded

brown tongue, dysury, and bloody urine; a strong pulse, no fever. His illness is said to have increased in the last three weeks. He has not been bled. (Calom. colocynth. antim. senna, sulph. magnes. fatus.) May 6th—After the use of port-wine, the tongue has become black and dry, the pulse weaker and quick; the tumor is augmented. He is reported to have had dysury, with turbid, and then bloody, urine, for three years; for the last nine months to have suffered pain at the epigastre, at times acute, aggravated by exertion, easier on inclining forward, with little disorder of the stomach or intestines, but some fever and emaciation; after which the tumor appeared, and became painful; then he had short respiration, with a dull harsh tone of voice, and pain at the chest.

Inspection.—(May 9th)—Much emaciated; the intestines vascular and dark, as if from obstructed circulation; the omentum vascular and wasted; the mesentery healthy. The mucous coat of the ileum slightly vascular, containing soft greenish mucous feces. The stomach situated in the left hypochondre, and healthy.—The liver and spleen sound, but of a darkish color. A hard Tumor of a medullary aspect was seated behind the omentum, occupying the whole of the epigastric umbilical and lumbar regions, attached to the kidneys, and to all the collateral chylopoietic viscera, enveloping the aorta, and firmly adherent to the spine. It originated in the large end of the pancreas, and appeared to be formed by degeneration of its substance, as it exhibited distinctly a conglomerate structure; in its centre was an *abscess*, consisting of greenish viscid matter. The kidneys were sound, but hard. The bladder vastly

thickened, its mucous coat vascular, the mucous glands large and soft. The prostate hard and dark. The heart small and flabby. The lungs adherent, but not disorganised.

No case can more awfully display the noxious effects of dram-drinking !

LITERARY DIAGNOSTIC HISTORY.

HIPPOCRATES, (*Opera Ommia ad Foesii*, p. 537) has described this as the first of his three kinds of phthisis; ‘from phlegm, when it fills the head, and putrefies, and the veins are filled, *ῥεῦμα* in on the lung, which is irritated by the salt or putrid phlegm ;—thus he suffers, at the outset, fever, rigor, pain at the back and breasts, some times acute,—cough, and he spits out much salt spittle ; in its progress the body wastes, except the thighs and legs which swell, and the feet and nails are drawn (curved), and he is thin and weak at the shoulders ; the fauces are filled with noise, and whistle as through a pipe ! (the rale of the French;) much thirst throughout, much debility. He dies tabid in a year.’ The treatment can only palliate, he thinks ;—‘it is fatal, few escape.’

His third phthisis seems to be the variety exemplified in the first section, order 2, above :—‘The spinal marrow full of blood, he wastes as from the hollow veins

(the *venæ cavæ*), becomes black and sub-tumid, the eye-lids pallid, the veins in the body pallid, and some red, mostly in the *axillæ*; he spits up pallid, and is suffocated, and cannot cough; and at times by the phlegm and effort to cough he vomits copious bile, and at other times mucus, and his food; and after vomiting he seems better; but the distress returns, and he speaks shriller than when well; and rigor and fever ceasing, he sweats.—It lasts nine years; a severe disease.’—Hippocrates must certainly have inspected morbid bodies. Dr. Cullen thought it impracticable to recognise his several varieties, and their synonymes in modern writers; but this is an error. There is much repetition indeed and his books were written at different times; but they show in an interesting manner his proficiency in the study of diseases as he advanced in years. His descriptions are truly picturesque; and there are interspersed many important practical hints. He has distinctly noted the spurious and genuine order of catarrhal phthisis; the former connected with diseases in the liver,—‘bloody sputa seem to indicate the fatal ending of liver complaints;’—the latter,—‘a purulent affection after a catarrhal; and pus devours the lungs.’ The pus does excite or extend suppurative and ulcerative action in internal parts. Vide Hippocrates, de *Glandulis*, p. 273;—de *Locis in Homine*, p. 415;—de *Morbis*, 450—483.

CÆLUS' description of phthisis also applies to the present form: 'cough, fetid bloody pus expectorated, recurrent fever, (i. e. hectic,)—it arises from the head, and falls upon the lung.' This he regards as true phthisis, and distinguishes it from other varieties of tabes, e. g. atrophy, and cachexy.

This is SYDENHAM's fourth variety, 'after immoderate evacuations,' (e. g. diarrhœa, and diabetes,) 'hectic and aphthæ.'

Some cases of MORTON's 'nervous atrophy,' which from his description seems intended to comprise tuberculous diseases of the serous membranes of the chest, or abdomen, belong to this form.

HOFFMAN speaks of this form under the term 'Rheumatic-catarrh,'—'from relaxation of the glands of the air-tubes, habitual cough, wasting, bad appetite,' &c. He gives cases of primary and secondary phthisis that were fatal yet the lung was not disorganised.

BENNET, (in *Tabid. Theatro*, Dr. T. Young, p. 170,) says that 'decline without any organic disease is very common in England, and generally fatal.'

Dr. GILCHRIST speaks of 'Pituitous consumption, without ulceration, in which there are saltish, sweetish sputa.'

MORGAGNI and DE HAEN found similar cases after the measles with ‘copious purulent expectoration.’

HUXHAM, *de aere* 1739, observes that ‘*Tabes pulmonaria* seldomer arises from ulcer than is thought; there is copious spitting of salt sweet or insipid mucus, and long cough, from relaxed glands and mucous ducts in the trachea and bronchia; not less fatal than *sanious* spitting; just as diarrhœa, diabetes, &c. without organic disease.’ He admirably distinguishes this from another kind (Form IV.) in which the lungs or their glands are indurated, with or without ulceration. The former is sometimes termed ‘humid asthma;’ the latter ‘dry asthma.’ He also remarks on the diversity in the treatment adapted to each of these forms.

The present variety is the ‘*phthisis humida*’ of Sauvages, although Dr. T. Young regards this as the third stage of the asthmatic phthisis.

Dr. RUSH’s remark ‘that in North America phthisis is not uncommon, yet scrofula is rare’—shows that this (as also the subsequent form) is really a distinct species from the first and second forms.

Dr. CULLEN’s *Tabes Catarrhalis* is the malady described by modern writers as ‘chronic bronchitis—or spurious phthisis;’ ‘cough, purulent sputa for years,

with or without hectic ;' paragr. 854, First Lines.—Such a disorder should certainly not be placed under the inflammatory class, it being truly '*cachectic*.'

Dr. BROWN, (Elem. Medic.) par. 574, notes 'cough and expectoration ending fatally, the lung's fabric being sound : the sputa here exceed that in (the other form of) consumption—and their character is different.'

PORTAL denies that '*mucous sputa* mark a distinct species of consumption, as they exist in all the species;' but as in the form designated 'mucous consumption,' the *bronchial* membrane alone is affected, by simple or ulcerative inflammation, this constitutes a distinct variety of the generic disease.

TISSOT noted this form—'the notion that colds (i. e. a pulmonary catarrh) are never dangerous destroys many;—an inflammatory disease of the lungs, or membrane lining the nostrils and forehead, dyspnœa, slow fever, wasting, and death.'

Dr. G. FORDYCE (ms. lectures by my father, 1791,) remarks that 'phlegmonous inflammation in the mucous membrane (a species of catarrh) assumes a chronic form; 'soreness in the breast, thin mucous sputa, a secretion from the mucous glands, cough violent, small frequent pulse, depression of strength, evening fever, restless

nights, morning sweats.' The fatal event he seems to refer to the debility from the copious secretion, like Huxham, and observes that the patient is *supposed* to die from exulceration in the lungs,'—implying that none exists. He describes two modes in which catarrh ends in phthisis; first, 'the matter excoriating the mucous membrane, or the mucus fermenting, is changed into pus, and ulcerates it;—or 2nd, by the cough an exhalation of blood ensues, or a vessel is burst,' (and ulceration follows.)

BAYLE separates the cases included in this form from phthisis; as 'not one in a thousand dies of pulmonary catarrh uncomplicated; the lung in such being liver-like.' Drs. Badham, Hastings, and Abercrombie, among the moderns, have shewn that this an error.

Dr. DUNCAN, ed. 1813, p. 73, admirably describes this form.

Dr. T. YOUNG says that a catarrhal affection most commonly 'gives rise to all the usual symptoms of consumption; that in this variety there is a ringing cough, and the capacity of the chest is less diminished than in genuine tubercular consumption; but the distinction would not affect the treatment.'—An error of bad consequence.

Dr. BADHAM's description of what he calls 'fictitious phthisis' from asthenic bronchitis, page 46, is most excellent; in the simple affection not consumptive, the chest is expanded to its full capacity without uneasiness.

Dr. HASTINGS, page 289, observes that in chronic Bronchitis a patient can take into the lungs a larger column of air than in phthisis; (in the latter the lung being disorganised:—a test of this is the number of words the patient can utter on a single breath;) 'and the sputa are more copious, hectic less regular, cough deeper, more sonorous, dyspnoea less, and more relieved by expectoration; peculiar pallor of the face and lividness of the lips; and usually after diseased liver.' This latter diagnostic is uncertain; the best guide is the previous history of the case. Dr. H. gives many cases in his work on Bronchitis, fatal with phthisical symptoms, particularly of the secondary order, superincident on scirrhus and cancer in the stomach, tuberculous peritoneum and mesentery, resembling cases xxxvi. and xxxviii.

Dr. THOMAS, (Modern Practice of Physic) says that 'old people die quietly from slight catarrh impeding respiration, and the mucous membrane is found red, and the air-tubes filled with mucus;'—as in chronic

phthisical catarrh. He deserves reprehension for not giving references to the various authors from whom he has stolen numberless extracts, with as little of discrimination as of acknowledgment.

The ‘Humid asthma,’ of which, according to Dr. M. GOOD, cough and expectoration are symptoms, is referrible to this form of phthisis.

Dr. M. HALL has some good remarks on the diagnosis of the secondary catarrhal cough with abdominal disease from primary phthisis;—‘in the *dyspeptic* cough the dry shrivelled skin is a contrast to the skin in phthisis, as are also the loaded tongue and fetid breath, the violence of the cough, the viscosity of the sputa, the morbid appetite, and the loaded urine.’ See ABERNETHY, *Origin of local diseases*, p. 202.

NYSTEN regards this form of phthisis as arising from ‘ulceration of the mucous membrane of the bronchia, which may also extend to the lung;’ but ulcers do not always exist, although probably very minute ones might often be detected by a microscope, when they escape the notice of the unassisted eye.

MARTINET says that the ‘STETOSCOPE *alone* will distinguish chronic catarrh from phthisis.’ It will en-

able us to discern simple catarrh from *disorganisation* of the lung, but it does not show whether the particular case is sanable or insanable. He also observes that catarrh or inflammation in the mucous membrane may resemble phthisis (i. e. from tubercles) in every particular, and the diagnosis is certain only when the disease is beyond the reach of art !' But the *phthisical* catarrh is not a *pure* inflammation ; and the *rise* and *sequence* of the symptoms will distinguish the catarrhal from the other forms of consumption.

Dr. FORBES remarks that 'half of the Cornish miners die of asthmatic-catarrhal phthisis, and that diseased heart is often conjoined.' This corrects an error of Dr. Southey, who stated that phthisis was rare in the mines of Cornwall.—Dr. F. also says that it is 'impossible to distinguish it from tubercular phthisis by the symptoms, (but possible with the stethoscope,) yet that the diagnosis is of great importance.'—Some cases of scrofulous suppurative inflammation in the bronchial membrane do resemble the soft tubercular phthisis, exemplified under my First form, and as these are intimately allied in their pathological nature the distinction is not of practical importance ; other cases again resemble those of a different species of tubercular lung ; here however the diagnosis is more easy, although not of essential consequence in the treatment ; for this

is to be founded more on the condition of the *vital actions* than on the organic lesions.

LAENNEC distinguishes two varieties of the ‘humid chronic bronchitis,’ attended by two kinds of sputa;—the first is the present form of phthisis,—‘sputa yellow as in phthisis, the affection is like it in other symptoms; fatal—at last rattling suffocative breathing:—its real character only known after death!’

CASES EXEMPLIFYING THE FOURTH FORM.

Cases described by various writers under the terms chronic pleurisy, hydrothorax, &c. will be placed here, being cachectic affections, with cough, dyspnœa, mucous, salivary, or purulent sputa, emaciation and hectic; these symptoms being connected with disorganisation in the lungs.

This form includes a most extensive class of cases, the common sequel of pulmonic inflammation;—the ‘asthmatic, exanthematic, rheumatic, arthritic, syphilitic, hepatic,’ &c. of Sauvages and Cullen. It is allied in its pathological nature to the third form.

This disease sometimes begins in the bronchial mucous membrane, from which it extends into the substance of the lung; or it may pass thither from the serous membrane. As it regards the *seat* of the inflammation the cases present three varieties: 1st—the muco-bronchial; 2nd—the empneumonic; 3rd—the pleuro-peripneumonic: the mucous, serous, or cellular membranes being severally affected. With regard to the distinct classes of symptoms there are but two varieties; 1—That of an affection of the mucous membrane, and the interior of the lung; 2—of the serous membrane and the exterior of the organ. Examples are found in which the inflammation is concurrent in all these parts. The prevailing character is that of tuberculous consumption; but it is very unlike the species exemplified in the First form. Its outset is sometimes as obscure as in the Second forms, and irregularities exist as to individual symptoms, but in its general character it is very distinct from the cases already narrated. It may be designated the *inflammatory* phthisis as being more allied to this mode of diseased action than to any other cognisable species; but it is presumed to be a specific cachectic action, which originates in the nervous as well as in the sanguiferous system.

SECTION 1—EXAMPLES OF SIMPLE PHONIC & PNEUMONIC
DISEASE, i. e. *in the air-tubes and lungs.*

CASE XXXVIII.—Graham, m. 21, a traveller, was admitted into the Workhouse, Sept. 14, 1831, exhausted by a long journey and poverty; having recently slept in a damp bed, he felt shivered, particularly in the back, and was never afterwards warm, even when he perspired in walking; he had cough, but with little expectoration, until shortly before death, when the sputa were dense, fetid, puriform, and lacerated; excretion difficult, much breathlessness, pain at the right side, violent pulsation of the heart, dropsy of the hands and face, no fever; he was confined to bed only a week before his death. He was repeatedly bled and blistered.

Inspection.—Little emaciated, of a fine form; the pericardium full of serum ($\frac{1}{2}$ lb.,) the heart sound, black blood in its cavities. The left lung a little serous; the right lung firmly adherent behind, indurated, full of granular tubercles, some softened, with small abscesses; some red hepatitis; one large ulcer in its upper lobe, with a gangrenous boundary, and no lining membrane.

The serous effusion from recent inflammation was the immediate cause of death. The morbid action which induced the dropsy also softened the tubercles. This hepatitis, tuberculation, and gangrenous ulceration, is of an inflammatory origin, a local disease, with which

Dropsy is much connected. The circulation in the right lung must have been much impeded; hence the violent action of the heart, (which was erroneously supposed to be diseased), and the effusion of serum into its bag.

Death here was premature, before the completion of the phthisical disorganisation,—after three month's illness, from accidental inflammation in the tubercular lung. The course of this kind of tubercular phthisis is properly chronic.

See a case by Dr. Abercrombie, Ed. Journal, xviii. section 7th, f. 30. and case m. 39; and § 4, m. 30.—and page 12, an instance of indurated tubercular lung with abscess, yet *no* puriform sputa. In Cooke's Morgagni, p. 342, case 8, is a good example of indurated, tubercular, ulcerated lung, and of its relation to inflammatory action.

See a good case of the irregular latent form of this species in Dr. Forbes on the stethoscope, f. a. 37.

A case by Morgagni, Ep. xvi. § 2. f. a. 22. fatal a few days after marriage!

Vide Ruysch, Opera Omnia, Amstelodam, 1721, Obs. Anat. Chirurg. xix.—Ditto Obs. Anat. Med. 56, 1684, f. a. 40.

A most important case by Dr. T. Simson, Ed. Med. Essays, showing, as Laennec has since done, how an abscess in the lung is sanable!

In the same work is an interesting case by Dr. G. Waugh.

In Dr. D. Monro's work on the Diseases of Soldiers, vol. 2, Ed. 1780, is a good case of chronic pleurisy fatal by effusion, which an operation might have saved. At page 142 is an instance of a singular pathological variety,—‘tumors at the lower part of the sternum, external, hard, suppurant, the bone rough at the bottom of the abscess; one died consumptive,—a large abscess was found to have penetrated into the chest, the sternum and ribs being carious all around it.

See a case by Dr. Hastings, Midland Med. Surg. Reporter, August, 1829, m. a. 66.

A case by Malpighi, in Morgagni, Ep. xv. § 25, of emaciation, slight cough, no thick spitting, much dyspnoea in all positions. Malpighi said the lungs were tartarised, i. e. calcareous; and so they were found to be. ‘Collate the case of *Rendel*, § 6, below.

See also case ix, Cooke's Morgagni, p. 344, of Scattered Abscesses in the Lungs.

A case of Empyema, by Dr. Williams, at the College of Physicians, 1828, in a boy,—the heart displaced, the left chest expanded, fluid detected in the intercostal spaces; incision abandoned from fear of death by the heart losing its support from the fluid' (most disgraceful pathology!) 'Pus filled the left chest, the lung compressed to the size of a hen's egg; the heart resumed its place on evacuating the matter.' 'In another case, of supposed abscess in the *lung*, the matter was circumscribed under the sternum, in the anterior mediastinum.'

A case by Dr. Hastings, on Bronchitis, p. 312, sacrificed through the neglect of blood-letting, and calomel; when it required the most active anti-inflammatory treatment, the means used were a blister, digitalis, salts, and sulphuric acid! The lung was indurated; the bronchial membrane full of a pus-like fluid and ulcers!

Another case of three months' standing after the measles,—treated by pil. hydrarg. 1 gr. for two weeks! and copaibæ $\frac{1}{2}$ dr. ter. die.; then cupping once to 6oz. two blisters, ext. conii 5 grs. t. d. and blood-letting to $\frac{1}{2}$ lb. with some colchicum and digitalis, in the course of four months! The lung extremely indurated, ulcers in the bronchia, and some tubercles. The liver disorganised, adherent to the ribs; pleuræ adherent, the peritoneum tuberculous!

See a case by Laennec, under emphysema, f. a.	39
..... ditto, ditto, ditto,	28
..... ditto, ditto, ditto,	52
..... ditto, under chronic pleurisy.....	30
in which tubercles and ulcers were found —this should not be severed from phthisis. .	
..... ditto, ditto, m. a.	18
..... ditto, ditto, ditto,	32
..... ditto, ditto, ditto,	35
..... ditto, case xiv.	42

A Case by Dr. T. Young, p. 277, from Stoll.

..... ditto, p. 333, Barry.

§ 1—VARIETY A—WITH ANASARCA.

CASE XXXIX.—Finnan, f. a. 25, March 1822, (Dr. Alison's, clinical, Ediuburgh,) is affected with Anasarca, starting from sleep, cough, and expectoration of puriform sputa, no complaint is made of pain, but she can lie only on the right side; pulse 140, respirations 60; urinescanty, bowels costive, fluctuation in the abdomen. Five weeks ago she was delivered of a dead child, and two weeks afterwards became affected with an exacerbation of cough, dyspnœa, hectic, and pain in the chest, which she suffered under for some months before her confinement; dropsical swelling of the body then ensued. She has been bled four times, and the chest

blistered, with relief of the pain, but dyspnœa and dropsy continued. She refers her complaint to cold. (Jalap cum calomel, E. canth. digitalis 1 gr. t. d.) 5th, Pulse 114, full, respiration quick and frequent, copious puriform sputa. She used ether with relief of dyspnœa, and her skin became warmer. (Miss sang. digit. inhalat. vapor. aq. calid. æther. sulphur. p. r. n.) 6th—Three ounces of blood drawn, sisy; cough and copious sputa remain, breathing worse in the erect posture, pulse 112, full. (Cr. digit. St. acid. sulphur. æther sulphur. liq. opii sed. 20 minims. o. n. Milk-diet.) 7th—In the afternoon, she did not seem worse; vomited a little, and fell asleep after the opiate; in two hours more a rattle was heard in her throat, which continued till 2 a. m. of the 8th, when death ensued.—Much water ran out of the mouth on removing the body.

Inspection.—Hard white tubercles, a few suppurating, were found in the lungs, other portions being indurated. Serum effused into the chest. The liver also was tuberculated.

Death here happened by rapid suffocation from mucus and serum in the air-passages, and in the chest.—The function of the lungs failed before the circulation. Did the opiate contribute to this mode of death? This case illustrates the influence of parturition on the progress of phthisis;—the acceleration of the fatal event is not from simple *exhaustion*, but from an attack of acute inflammation, of which the body is then peculiarly susceptible. It is referred to this form of consumption—

1st—as the scrofulous diathesis was not perceptible ;
 2ndly—as the lung was indurated ; 3rdly—as death
 was premature from an acute inflammation, and not
 absolutely from the consumptive disorganisation of the
 lung.

CASE XL.—Dodd, m. 60, July 1829, has had cough
 with dyspnœa and occasional hæmoptysis for many
 months ; the sputa are now copious and purulent ; the
 appetite good ; he never had vomiting. He lately
 suffered under enormous ascites, for which paracentesis
 was performed, when 16lbs. of serum were drawn off,
 with relief from pain in the side, after which the urine
 was passed profusely ; he has used squills and ether with
 benefit ; the pulse is now irregular and weak. 11th—
 More serum escaped from the belly ; much thirst.—
 (Scilla, liq. ammon. acet.) 26th—Vital powers sinking,
 copious sputa, emaciation.

Inspection.—20 hours, p. m.—The skin brown and
 scaly ; the belly tumid, fluctuation, but no solid tumor
 to be felt ; on the pleura marks of old vascularity ; the
 right lung firmly adherent to the side : its substance
 very much indurated, more so at the upper back part—
 full of hard white tubercles, and the intervening tissue
 hard and dense, with many ragged ulcerous gangrenous
 cavities. The left lung collapsed and wasted, its tissue
 natural. The mucous membrane of the trachea and
 bronchi like scarlet cloth. The pulmonary arteries
 and veins natural. No serum effused, but in the peri-
 cardium which was dense and opaque. Varicose veins

on the heart which was wasted; some osseous grains in the aorta which as far as the arteria innominata was much dilated, but not disorganised. The chordæ tendiniæ were like parchment shreds. The bronchial glands large, dense, and livid. The peritoneum abdominis vascular and opaque, holding 6lb. of citron colored serum and coagulated lymph. The colon, jejunum, and duodenum, very large; the ileum contracted. The stomach large, exteriorly livid, and vascular; all its coats greatly thickened, its mucous membrane two lines in thickness, pulpy, livid, vascular, much viscid mucus on it; the pylorus sound. The gullet in a similar state, but in a less degree; as also the small intestines, but less vascular. The colon in its muscular coat extremely thickened, its mucous less so; it held much healthy feces; on its peritoneum were spots of arborescent vascularity. The pancreas was hard and wasted, its duct very large. The spleen similar; its peritoneal coat thick and opaque. The liver very hard, singularly wasted, its right lobe *not half its proper size*, the left not larger than a prostrate gland; its interior of a natural aspect! its peritoneum thick and opaque. In the gall-bladder was good bile! no vestige of recent vascular action;—marvellous *hypertrophy* of the digestive tube, and *atrophy* of the cœliac organs were the prominent features. The capillary vessels of the serous membranes were dilated; the glands at the root of the stomach large and livid.

This is a marvellous instance of morbid fluxion to certain parts, and a secretion of viscid mucus in them with induration, condensation, and wasting of others,

without evident degeneration of their texture; an inverse ratio is observable in the nutrition of the organs supplied by the different branches of the abdominal aorta.

See Dr. Forbes' translation of Laennec's case, under Edema, f. a. 45.—f. a. 40.—and under Melanosis, m. a. 60.—f. a. 59.

See Dr. Forbes' case, m. a. 66. (on the Stetoscope,) and m. a. 39.

A very interesting case by Dr. Gregory, Edinburgh Journal, October 1831, with Melanosis; which is merely a variety in the tuberculant action, not a separate genus of disease.

CASE XLI.—Geach, 26, a sailor, June 1831, sixteen months ago, was infected with syphilis, for which he used some drops from a quack, and bathed in the sea; on which the lungs became affected: five months ago he had hæmoptysis. He was never bled. He now has cough, dyspnœa, pain at the left side of the chest, and profuse opaque mucous sputa. (E. canth. acet. plumbi.) July 7th—Pain relieved by the blister; cough less, but he has colic from the medicine, (of which xiv. grs. have been taken,) this was relieved by Ol. ricini cum tra. opii. (St. oxymur. hydrarg. acid. muriatic. decoct. sarsaparillæ.) 15th—Extreme emaciation, a slow

pulse, cold sweats, a pallid face; respiration in the left lung through the stethoscope very *dull*, in the *right* natural. 20th—Better, still a severe hollow cough.—August 17th—Phthisical symptoms remain; chest dull on percussion, and respiration inaudible; profuse sweats. (Acid. nitric. myrrha, digital. ipecac. eumopio, setaceum.) 27th—A similar state; no hectic; some relief of cough; voice very hoarse.—Signs on percussion and auscultation as before. Sept. 3rd—Aspect better; very little fever. (Bals. copaiib. tr. myrrhæ.) 10th—Inter. medie. st. ipecac. eum. opio. 17th to 22nd, A terrible cough, followed by copious spitting of florid blood, (1lb. in three hours,) with a rapid tense pulse, no pain except at the pube on coughing; a red tongue, very pallid face. Blood-letting was ordered, but rejected; an Apothecary gave him some powders, and held out hope of a cure! 24th—Hæmoptysis returned. 28th—Pulse frequent and strong, the flow of blood has ceased, severe cough and viscid sputa remain, tongue clean. Oct. 14th—Disease advancing; he is cheerful in the morning, ill and low in the evening. 22nd—Breathlessness, cough and sputa, hoarseness, with tenderness at the larynx; diarrhœa; a rapid full pulse, hectic sweats. He lately spat much matter, as if a vomica was burst. He uses no medicine. 30th—A similar state, no pain, except at the belly, a clean red tongue. Nov. 3rd—Remittent mania. 10th—Extreme emaciation, pulse low, cold rigors, severe diarrhœa, hoarseness, pain at the larynx impeding deglutition; cough and sputa as before; he still rejects medicine.—28th—Voiceless; hectic has passed into the typhous or low state preceding death; the sputa very heavy; he still sits up, and has a good appetite, eats meat and

drinks porter! December 11th—Death—diarrhœa to the last.

Inspection.—30 hours p. m.—Emaciation really horrid. The right chest much enlarged, containing 1lb. of dark serum. The lung unadherent, exteriorly healthy, very large, its back part dark by gravitation of blood; the entire upper lobe filled with innumerable hard granular tubercles, some softened, their cavities as large as peas, lined by an opaque thin membrane; at the posterior part was an ulcerous cavity, as large as a filbert, with a ragged boundary, no lining membrane; the entire remainder of this lung, except at its anterior edges, was excessively red, dark and solid, exhibiting extreme hepatisation, not an interstice of natural lung; no softening of this portion; it seemed as if the blood had filled and dilated all the small vessels and air-cells; but the lung was so large that the anterior healthy portion might suffice for the change of the blood; much hard tuberculation was also seen, and spots of dark matter, giving to a section the aspect of *granite*, which probably existed before the last sanguineous engorgement. The left lung was entirely and inseparably adherent to the chest and pericardium, shrunk, indurate, dark;—exhibiting a mass of cavernous tubercles, holding fetid dark pus,—there was one large ulcerous cavity; no vestige of red vessels. The trachea was stained red. This part of the chest was very much contracted. This lung was evidently the seat of disease long before the right.—The larynx was not opened; it was certainly ulcered. The heart was wasted. The peritoneum was dark, of a melanotic aspect, as was also the exterior of all the

intestines, except a part of the ileum, which was quite *white*. The liver was protruded as far as the navel, vastly enlarged and solid, its convex surface rough, as if ulcerous, of a dirty red-umber color; bile of an ochre-color in the gall-bladder. The spleen and stomach were small, but the mucous coat of the latter was much thickened, *softened*, and very rugous, lined with thick morbid mucus. The first part of the small intestines was similar; the latter part of the ileum very dark exteriorly; its mucous coat like that of the stomach, and several large *ulcers* in it, with livid tuberosc surfaces. The mesenteric glands were much enlarged, hardish, uniform in color and texture; (a sequel of the disease in the intestines.)

Syphilitic phthisis is a tubercular as well as an ulcerous affection, exhibiting the hard white or black albuminous tubercle, which becomes softened like the caseous although of a diverse chemical nature; the ulcers are not unlike chancres, essentially different from the scrofulous ulceration seen in form ii.

The hæmoptysis was from acute hæmorrhagic action in the lung's substance, and from an exudation from the entire mucous surface of the bronchia in the right lung; the horrid effect of morbid action when uncontrolled is here impressively shown. Large blood-letting would have restored much of the natural aspect of this lung.

The continuance of life under such extensive organic

ravages is truly marvellous. This case confirms the truth and value of the signs derived from percussion, and the stethoscope.

It is to be regretted that blood-letting was omitted in June; but his prostration of strength, pallid wasted aspect, and the absence of inflammatory symptoms prevented its use. Tonics are certainly inadmissible in such a case. Counter-irritants should be more employed.

The following case is an important subject for collation with the preceding; and well establishes the value of active treatment in a similar form of Hæmoptysis.

CASE XLII.—Henwood, m. a. 23, (June, 1826,) had been ill for ten months in Granada of febris intermittens and hepatitis; at present he complains of dysury, dyspepsy, stupor, and dyspnœa on the use of animal food. (Linim. hydrarg. pil. hydr. decoct. aloes co. tepid sea-bathing.) August.—Convalescent. Jan. 1828—Dysentery; which was relieved by mild means. Feb.—Pleuro-bronchitis. (M. sang. hydr. colocyntb. salina, ipecac. liq. ammon. acet. emp. canth.) The blood lax and serous. March—Convalescent. June—Vertigo, head-ache, some fever. (Cathart. salina, colehic. pil. hydr.) Relief shortly. Dec.—Peripneumony, relieved by m. sang. lbiss. by his apothecary, which left vertigo and much debility. Then nitric acid was of advantage. Jan. 1829—Cough, sick head-ache, irritable bowels.

Diagnosis, bronchitis, enteritis erythem. (Hydrarg. scilla, ipecac, acid. nitric, emp. cantb.) Relief in a few weeks. December 7th—After exposure to severe weather, he has had oppression on the lungs, with cough, for many days; he used a sudorific with relief. Yesterday, while sitting before the fire, he spat 4 oz. of florid blood. He was bled to 1 lb, and a purgative given. In the evening 4 oz. more was spat. (Miss. sang. 2 lbs.) The hæmoptysis continued through the night and to-day to $\frac{1}{2}$ lb. The blood from the lungs is florid and coagulated; that from the arm sizzly. There is a gentle cough before the flow, and a sense of a load in the inferior part of the lung; pulse 84, soft, of good strength, although 4 lbs. of blood has been lost in 20 hours. (Hirud. 14, sulphat. magnes. nitrat. potass, digitalis.) At night a return of profuse hæmoptysis. (Miss. sang. 20 oz.) The blood now very buffy. 8th—Pulse not deficient; yet $1\frac{1}{2}$ lb. of blood has been lost from the lung, and 4 lbs. from the arm, in three days. (Alumen. acid. sulph. tr. opii. laxantia.) In the *evening* the blood again flowed rapidly from the lungs (3 oz.). The bowels well opened. (Plumbi sub-acet. gr. 2, opii gr. $\frac{1}{3}$ o. 2. h. hirud. 12, sterno.) 9th—No more blood since last evening; slight bronchial irritation, little cough, no fever; pulse 80, fullish; six doses of medicine used. (Internr. med. st. salina cm. scilla.) 10th—Better. 11th—Head-ache, pulse 72, empty; tongue loaded, a little cough and Dyspnœa. (Hydrargyrum cum opio, emp. lyttæ, diluentia.) 12th—Better. 13th—Nausea, little cough. 14th—Pulse 60 full; head disturbed, bowels purged. (Salina, omitr. alia.) 15th—Pulse 50! head much confused. (Hirudines, cathart.) 16th—Pulse 60, head better;

skin dry, tongue loaded. (Calomel, antim. scammon, sal. cathart.) 17th—Five stools with relief; scalp benumbed and head disordered, chest relieved. (Abrad. capill. cathart. hirudines, empl. cantharid.) 18th—Delirious in sleep, pulse 58, a little cough; leeches and the blister not used, good stools. 19th—Better; pulse 52! Bowels well purged. (Cathart. hydrarg. ipecac. emp. cantharid.) 21—Pulse as before. 23—Vertigo, and disturbing dreams. 27th—Convalescent! *Feb.* 17th—Cough, bloody sputa &c. (M. sang. 2lb.) Blood buffy; relief. (Scilla, ipecac. sal. cathart. emp. canth.) 18th—Fever, and head disordered; pain at the superior part of the left chest on full inspiration. 19th—Pulse 80, tense; bowels purged. (Colebic. salina, hirudines) 20th—Rigor at night; hectic in the day, pain at the left chest severe, a little cough with mucous sputa. (Salina, diaphoret. ung. hydrarg. antim.) 21st—Better. 22nd—Hectic. March—Hectic, vertigo; phthisis advancing. May—Dreadful Hæmoptysis; checked by Miss. saog. plumbi subacet. &c. June—Constant cough, sputa &c. July—Aphthæ but no diarrhœa, emaciation extreme, pulse a wave.—Death shortly.

The alternation of disease in the lung and brain is an interesting and important feature in this case.—Its pathology was difficult of solution. The loss of blood which the system had suffered made it probable that it could not be from active congestion and increased momentum of the blood in the head; but a state analogous to the encephalic disorder from exhaustion. There is another pathological principle, however which, from

the effect of the treatment, seems to be the true solution of the phenomenon,—that when a violent disorder in one part of the system is suddenly checked it will be determined to another part, exhibiting what has been termed a conversion of disease. And it is demonstrable that the general system in its state of greatest exhaustion is susceptible of a derangement in the circulation of the blood, similar in its effects to that which may happen in its most vigorous and plethoric condition !

CASE XLIII.—Pardon, 43, January 1825, long subject to hæmoptysis ; now has cough, viscid mucous sputa, rigors, a small pulse, suffering also from mercury. (E. c. copaiba.) Feb. 3rd—Less cough, but some hectic. (Cr. med. st. cath. ex. aloë, hydr. ipecac.) 24th—Has had head-ache, for which ung. antim. tart. was used ; severe pustulation of the scalp from it ; at present fever, hæmoptysis, pain at chest, pulse 104 full. (Miss. sang. acid. sulphur. sulph. magnes.) Blood florid, not sily. 25th—Pulmonary complaints relieved, acute pain within the head. (Calomel, ipecac.) 27th—Delirium, less head-ache ; symptoms of syncope angens. April 21—Rigors, tremors, fever, pain at head, hæmoptysis ; pulse 80 strong, costiveness, a furred tongue. (Miss. sang. cathart. nauseant.) 22nd—Symptoms abated ; pulse 108 weak. 25th—Fever, delirium, a red mucous tongue, hæmoptysis, no pain. (Cath. salin. digital.) 26th—Vital powers failing, hæmoptysis ceased, tremor. (Enema.) 27th—Delirium, the belly tender, pulse 120 ; *no cough*, some fever, and pain at head. 28th—Death.

Inspection.—33 hours. p. m.—Emaciation, belly tumid; chest sonorous; the upper back part of the left lung strongly adherent, and indurated, containing a large ulcer filled with dense calcareous pus, and lined with a thick fibrinous membrane; the remainder of the lung sound, but its back part livid by gravitation of the blood. The right lung entirely adherent, very indurated, small hard white tubercles interspersed through it; at the superior posterior part, a large ragged melanose ulcer, containing concrete dark fetid matter. The bronchial glands large, black in the centre, containing calcareous-bone-like matter. The mucous lining of the trachea and bronchia like scarlet cloth. The heart sound, it held much black blood, and fibrin.

Bronchitis was the cause of the recent hæmoptysis. Where disease is found in the interior of the lung, there the pleuræ are adherent. It is truly marvellous that such extensive ravages should have subsisted under such inadequate symptoms; and that the morbid action in the lung could have been so suspended as to admit of comparative amendment from March 5th to April 18. This history shows that the *symptoms* of disorder are more attributable to morbid actions than to the positive ravages in the structure of parts; this should encourage our perseverance and hope in organic diseases.

CASE XLIV.—Mew, a sailor, a. 42, April 6, 1830, fell a year ago from the mast of a ship and struck his

side, after which he had pain at his stomach, and sores on the belly and legs, which however healed, and he resumed his labour. In December, 1829, he went into the Poor-house hospital, and was bled for a pain at the stomach. In January, he went to his work on shipboard. In February, icterus came on, which remains. A fortnight ago, ascites appeared, which is now excessive; the tongue clean, costiveness, scanty red urine; irregular pulse, severe dyspnœa. (Digital. calomel. cambog.) This medicine purged him. 7th—Paracentesis abdominis well borne, much serum drawn off. 8th—A little frothy fluid blood spat, which he says came from the gums; little complaint, the belly soft, and tumid; fluctuation at the inferior part. 9th—1lb. of blood spat, with retching. 10th—1lb. again spat; *no* cough, some pain at the stomach, low delirium; the body cold, pulseless; costiveness. (Ol. ricini, enema.) Death in five hours, after a sudden gush of blood.

He had a cough since his injury, and pain at the right side, but for the last few weeks so trifling as not to have been complained of. He was always hungry, never sick; the bowels at one time lax, at another costive.—Some blood passed in the stools two days before death. He had no cough or interrupted breathing at my visits, when I saw the blood gushing from his mouth without effort.

Inspection.—49 hours p. m.—The skin yellow, extremities emaciated, livid; the belly tumid, tense, sonorous. Much extravasated fluid blood beneath the skin around the puncture made in the operation, but no wounded artery could be detected; it was ecchymosis from atony of the blood-vessels. The peritoneum

held 5lb. of dark yellow, viscid, sanguine, bilious fluid. The small intestines extremely enlarged, fleshy, livid; in some spots scarlet, the lower third of the ileum smaller, of opaque yellow hue; the colon small from atrophy; livid at the sigmoid flexure: much air in the intestines; their mucous coat, as far as the middle of the ileum, enormously thickened, covered with viscid mucus; not vascular. The stomach vastly enlarged, and distended by black clotted blood, like treacle with sand in it! its peritoneum yellow, the mucous coat colorless, no lesion visible; at the cardia a ring of livid vascularity. The duodenum like the stomach. The liver half its natural size, its anterior part extremely shrunken, of a dirty green hue, variegated with spots of a deep yellow substance, which seemed to be healthier portions of this organ, softened and full of dark yellow bile, and on which the other was planted like fungus on a tree; no distinct tubera in it; its substance as tough as leather. The gall-bladder glossy and inelastic, full of dark green bile, (which had stained the liver.) The bile-ducts large and open, (the icterus then may have been for specific absorption, without any obstruction to the exit of the bile. The vena portæ very large. The spleen black, very large, very soft, turgid with dissolved blood. The kidneys large, soft, serous; some bloody effusion in their pelves. The heart sound, but small; some serum in its bag. The right lung entirely adherent to the ribs, the left less so; both large, dark, full of black dissolved blood, their cellular tissue completely injected by it: no induration; no rupture or ulceration! The trachea and bronchi filled with grumous blood, and pieces of fibrin so altered as to resemble carious fish-bone!

It seemed as if some carious vertebra had passed into the air-tubes, but the spine was sound. The pulmonary blood-vessels were empty. The larynx and gullet sound. This is an instance of profuse sanguineous exudation from the bronchia throughout the lung, more particularly the right; the hæmoptysis *cachetica* of Dr. Cullen; it resembles 'pulmonary apoplexy' more than any other state. Was it not secondary on the morbid changes in the abdominal viscera? It may have been a change in the distribution of the blood from the vascular into the cellular and bronchial textures of the lungs, rather than an absolute *congestion* of blood in them. The atonic state of the blood-vessels may have been the result of the morbid bile diffused in the system. The morbid state of the blood also seems to have prevented the cessation of the hæmorrhage. We observe some very exact hydraulic phenomena in the functions of the sanguiferous system;—e. g. the parts supplied by the inferior mesenteric artery were in this case *ill* nourished, while those to which the superior is distributed were hypertrophied—the same thing is seen in regard to the splenic and hepatic arteries. What relation had the morbid appetite to the state of the stomach and small intestines? Had the operation more than an accidental connection with the consequent hæmoptysis?

CASE XLV.—Pridham, m. a. 39, a soap-boiler (April 1827.), eight years ago had a blow in the chest, which excited pain and hæmoptysis; nine months ago, on letting out some acid gas in the factory, he had a strong fit of coughing, followed by hæmoptysis, and pain through the præcordia to the scapulæ; under these complaints he persisted in his labor for two months, and then had fever, indigestion, and a return of hæmoptysis. (Miss. sang. emp. canth. ung. ant. tart.) Afterwards he resumed his labor. Nine months since hæmoptysis recurred with pain, fever, cough, and vomiting on any slight offence of the stomach. (Scilla, hydrarg. couium, digitalis.) *May*.—Head-ache and costiveness; pleurisy, and a hard cough. (Miss. sang. emp. canth. calomel, ipecac. ung. antim. tart.) The remedy produced dysentery. 16th—Hollow cough and sweats. (Acid. nitric. nitrat potassæ, digitalis.) Costiveness, nausea colic, pain at the left scapula remained; a small hard pulse, increasing hectic, and emaciation; a little tenacious mucous sputa to the 25th. He used mercurials and diuretics. (Taraxacum.) The liver was believed to be diseased as well as the lung. 28th.—Less cough, more sputa, three stools a day, pulse 112, tremulous, no fever, medicine intermitted. *June*.—Hectic, a hard cough, excited on lying on the left side, (Digitalis, acid. nitric. ung. hydr. antim.)—Afterwards a raucous voice; the stethoscope disclosed pectoriloquy, the respiration was dull in the left lung; pain beneath the left scapula, pulse 120. Emetics of sulphate of zinc were used without effect; hectic increased, and severe tremors of the muscles; a phlegmonous abscess formed in the cheek, and burst in the mouth; severe pain at the hip. *July*—Pulse 130, severe cough, little sputa;

he can lie on the right without coughing, not an instant on the left.—After this viscid sputa 1lb. in a day, the fever abated, the cough ceased, delirium ensued, and in three days, Death.

Inspection.—Emaciation extreme, the left chest protuberant, containing air; the entire pleura pulmon. and costal. was coated with fibrin; the lung at the superior anterior part was adherent to the chest; turbid serum effused here, and in the pericardium. The whole of this lung was much indurated, containing hard white tubercles, some excavated, filled with soft cheese-like matter, lined by a fibrinous membrane; many large ulcers at the anterior part of the superior lobe. The right lung was sound, a little adherent; some serum in its pleura. The heart emaciated. The abdominal viscera had ascended so high as the fourth rib, and greatly contracted the chest. It was not allowed us to examine the abdomen. In none of the morbid parts were there any marks of recent inflammation.

This case is extremely interesting from its remote cause, the variety and severity of the symptoms, its invincible progress, the effects of the various remedies, the mode of dissolution, and the appearances on dissection. The abstraction of blood was too much neglected in the early part of the disorder. The white tongue, vomiting on food, the escape of air from the stomach, which was opened from the chest, the irregular state of the bowels, the red urine, &c. indicated serious disease in the digestive organs. The case of Geach may serve

to illustrate what the imperfect dissection here has left obscure. The mineral acids seemed to be hurtful. Antimonials, mercury, and counter-irritants relieved the cough, but the hectic and debility were increased after their use. The intensity of the pulmonary symptoms and the resistance to dissolution were remarkable; the subsidence of cough and fever, and the accession of delirium for 56 hours before death are interesting phenomena. Death ensued at the end of five months from the last attack of pleurisy, and thirteen after the disease became fixed,—six weeks from the accession of hectic. The symptoms demonstrated that one lung only was diseased.

CASE XLVI.—By Dr. Knight, of Sheffield, North Eng. Med. Journal, 1830, on Phthisis in grinders, who worked eleven hours a day in small rooms;—of 2,500 only thirty-five lived to the age of fifty, and seventy to forty-five!

In a man aged 20, gradual dyspnoea, sallow complexion, tightness at chest, hoarse voice, loud cough, dust in the mucous sputa, hæmoptysis; then purulent fetid sputa, tenderness and thickening at the larynx, pressure there exciting cough, pulse 120; dropsy, and death after years of suffering! Peripneumony in its course; an intractable form; yet recovery happened in a late stage if the trade were abandoned! No dissection was obtained of these cases! The general treatment consisted of emetics, leeches, diaphoretics, laxatives, mercurial alterants, digitalis, scilla, and colchicum.

CASE XLVII.—Dr. Davidson has described an interesting case in the *Edin. Med. Surg. Journal*, July, 1831;—f. a. 40, profuse hæmoptysis, which was relieved by the usual means; but a puffy purple face, occasional dyspnœa, and palpitation remained for three years; then dropsical legs; a weak, irregular pulse, violent action of the left ventricle of the heart. (Miss. sang. digitalis.) Afterwards sudden debility, dyspnœa, a small intermittent pulse; the right chest dull; a mucous rattle; slight cough, no sputa; in two weeks suffocation, copious hæmoptysis, and Death.

Inspection.—Right lung; upper lobes firm, infiltration of pale blood, two large cavities distended by 2lbs of fetid blood. The left lung sound! The heart enlarged in the left ventricle; atrophy of the right; right auricle enlarged; aortic valve indurated and contracted, its inner tunic stained red. The liver vastly enlarged. (Collate the case of Geach.)

Laennec says that ‘rupture of the lung is an effect of the hæmorrhage; he had no faith in the pre-existing softening of the lung.’ This is not correctly affirmed of all cases.

There is an extraordinary case of the present form by Mr. Smeal, in the *Glasgow Medical Examiner*, April, 1831.

Dr. Forbes in his illustrations of the stethoscope 1824, has a very good example of the present form of phthisis in a female, a. 53.—He regards a granular state of the

pleura as the result of inflammation'; but certainly not of common inflammation. Imperfect hectic seemed to indicate incipient softening of the scirrhus lung. See also case m. a. 48. by him.

CASE XLVIII,—(by Dr. Duncan, in a review of Laennec in the *Edinburgh Journal*,) of profuse hæmoptysis, then phthisis; for a few days before death severe pain at the right hypocondre and loins, inability to turn thereon.

Inspection.—Air in the chest, no fluid, (it having been resorbed;) the lung compressed; recent lymph on the pleura,—or bloody coagulated fibrin, as he terms the case *hæmathorax*.

CASE XLIX.—A remarkable case by Hoffman, of dry cough, hæmoptysis, dyspnœa, pain, hectic, delirium; to the latter he had been subject in youth, and was then cured by blood-letting every two days for a long while.

Inspection.—The left lung indurated, and vomicæ in it full of glutinous pus; the right less so; general adhesion; a polypus in the pulmonary artery, which is very rare.

CASE L.—(by Dr. Davidson in Dr. T. Young, on consumption, a. 64, with phthisical symptoms, 4 lb of blood spat in a fit of coughing. (Blood-letting, and $\frac{1}{2}$ lb of fluid given in 24 hours, (as Dr. J. Hamilton of

Edinburgh, treats menorrhagia,) restored for the time, but she died afterwards. The aorta found ossified.

Case by Portal, of hæmoptysis; the lung simply indurated.

CASE LI. (by Dr. Abercrombie, Ed. Journal, xviii, p. 14,) aguish *rigors*, with hæmoptysis (like E. Henwood's above.)—Induration in the lungs, abscesses and ulcers with open mouthed blood-vessels! Rigors seem to characterise this sort of gangrenous ulceration. A very interesting case, by Dr. Seymour, Medical Gazette, vol. i. m. 51.

Case in ditto at St. Thomas's Hospital, Jan. 1828, which establishes the sanability of ulcers in the lung.

Case by Laennec, m. a. 20, Hydatids in the lung.
 Ditto, ... m. a. 66, under chr. pleurisy.
 Ditto, ... m. a. 29. ., . . . ditto,
 Ditto, ... m. a. 22, very important.....

Case by Dr. T. Young, p. 217, from Haller, f. 55. Ditto, p. 183—from Willis.

§ 2—CASES CHIEFLY CHARACTERISED BY
 LARYNGEAL AFFECTION.

CASE LII.—Lukey, f. 23, Feb. 1829, has long had severe syphilitic pain in the limbs, and at the larynx which is enlarged, with loss of voice, a slight but constant cough on attempting to drink; the palate is a little

ulcerated ; pulse weak, much emaciation, vomiting and diarrhœa latterly. A vast quantity of leeches were used by her former medical attendant for the pain in the joints. (Pil. hydrarg. co. cm. conio et rheo, lin. hydrarg. dec. sarsap. co.) 21st—For the last fourteen days urgent vomiting of some yellow mucus, always excited by drinking, even of cold water, which alone she has tasted for this period. The diarrhœa has been succeeded by costiveness—which an enema ex. ol. crotonis 4 min. cm. ol. terebinth. a little relieved.—Tongue clean; much thirst, pulse very small, skin cold, the belly flaccid, in parts knotted, and tender at the margin of the ribs (from the vomiting.) Enema. linim. rubefaciens, alkali.) 25th—Urgent vomiting continues; some bloody mucus ejected; pulse gone; a large costive stool procured by ol. croton: she was found in a dying state from starvation; some brandy revived her a little, but death ensued shortly.

Inspection 26 hours p. m.—Extreme emaciation. The larynx thickened, its cartilages ossified; its mucous lining indurated, a large ulcer in its middle; small ulcers in the pharynx; the inferior part of the trachea vascular; the gullet and lungs sound; their posterior part livid; some adhesion of the pleura beneath the right scapula. The stomach and intestines bleached, emaciated, some mucus in them, and natural feces in the latter; the gall bladder full of bile. The other viscera sound.

Comments.—The horrid vomiting, was from a sympathetic affection of the stomach with the ulcerative irritation in the throat; I have seen it also in Scarlatina

anginosa. The diarrhœa seems to have been from an analogous spasmodic affection of the intestines, in Cullen's sense of *spasm*, i. e. inordinate action of the nervous and muscular parts. Such a state will not be relieved by the medicines, (eg. hydrarg. and ipecac.) which are of excellent utility in diarrhœa from erythema of the mucous coat. The subsequent costiveness was from the muscular *atony* of the intestines, and the stop which the incessant vomiting must have put to all peristaltic action in a contrary direction. Such a case has been mistaken for a diseased stomach.

CASE LIII.—Mr. P. S. m. 36, of a strumous constitution, and intemperate habits—from Oct 23rd, to Nov. suffered under severe phlegmonous crysipelas in the face and arm, with much disorder in the brain; and deep ulceration in the palate and tongue; by active anti-inflammatory remedies, and subsequently tonics, he was much relieved. Nov. 1.—Some irritation in the larynx, good mucous sputa; pulse 90; (Liq. ammon. acet. vin. antim.) 2nd,—Better. (Bark, and wine.) At *night*, pulse 110, 3rd,—Irritation in the throat remains. (Intermit^r. med. st. acid. sulph.) 5th, Pallid ulcers in the tongue have recurred; some irritation on coughing. (Dec. cinchon.) At *night*, pulse 110, soreness through the chest. (Hirudines, Digitalis, antim. tart. liq. ammon. acet. om^r. tonica.) 6th—Better; some blood passed from piles. (Porter, and bark.) At *night*, pulse 112, strong, clean red tongue, little cough. (Digitalis, hyosc.) 7th,—Some cough, little pain; (Bark.) *Evening*; pulse 112, irritation at larynx inducing cough. (Hirud. e. Iyt. digital. hyosc.) 8th—

Throat relieved, pulse 96; some mucous sputa; no fever. (Repr. med.) 9th,—Some cough; fowl and negus allowed. 10th—Pulse 86, mucous sputa. 11th—Pulse 96, he feels strong. (Sulph. potassæ cum rheo.) 13th—Tongue pallid, pulse 95, weak; tonics resumed. 14th—Vomiting of all that was taken; pulse 120; delirium, costiveness, alarm on hearing of the death of a person similarly affected. (Enema, tr. digital. hyosc. laxant.) 15th—Purged, and relieved, pulse 108. 16th—Delirium, tongue much furred at the root, pulse 120, pain at the posterior sciatica nerve which was relieved on using Linim. sapon. cum opio—some mucous sputa. (Inter. cinchona, st. tinct. digital. et humuli.) Bland diet.—17th—Respiration quick, pulse 120. (Mist. ferri. comp. spt. ammon. aromat.) 18th—Pulse 88; *harder*; severe pain at the gluteus. (E. canth.) 19th—Much mucous sputa; he is unable to swallow meat. 20th—Pulse 86; symptoms improved; but much pain at the sciatic. 21st—Voice hoarse, less sputa, much emaciation and weakness. (E. canth. acid. nitro-muriat.) 23rd—He rode on horse-back; less cough, but much pain at the thigh on motion. 25th—Slight tickling at the throat; he enjoys his rides; he feels better when the bowels are *purged*. 29th—Pulse 120; tongue furred, its ulcers deeper, cough and sputa less. (Omitr. acida. st. tr. digital.) Dec. 1.—Much hoarseness. 4th—Vomited the medicine. (Gentian and myrrh taken.) 6th—Colic and diarrhœa; pulse 120, full; tongue much furred. (Creta, kino, opium. digitalis.) 7th—Diarrhœa remains. (P. rhei. cm. magnæs. et hydr. cm. creta.) 8th—Pulse 108, tongue dry; some bilious stools without pain. (Cr. mcd.) 9th—Respiration quick, cough, copious sputa, and purging.

(Catechu, kino, opium.) 10th—Diarrhœa;—death, 41 days from the first soreness in the throat.

Inspection 40 hours p. m.—The top of the larynx much thickened, a dropsical swelling at the arytaenoid cartilages, beneath them a large foul *ulcer*. The mucous membrane of the gullet thickened and opake; that of the trachea inflamed. The thyroid cartilage ossified, and the hyoid bone near the ulcers carious. Further examination not allowed.

LIV.—A Case in Dr. Bright's Med. Reports, vol. I. 'with a hoarse voice, clanging cough, pain in deglutition; respiration before death, as if in asphyxia.

Inspection.—Ulcers below the rima glottidis, and on the front of the thyroid cartilage; the mucous membrane vascular, and loaded with mucus.'

Dr. T. Young, p. 351, gives a case from Thomann, marked by dysphagy, pain at larynx, mucous sputa, dyspnœa on walking, wheezing in respiration. Inflammation and ulcers found in the fauces.' An exact portrait very distinct from the tracheal phthisis of Dr. Roberts, under Form I.

Many important cases have been collected by Dr. Abercrombie in the Edin. Journal, vol. xvii.

§ 3.—COMPLICATED WITH DISEASE IN THE
ALIMENTARY CANAL.

CASE LV.—Edwards, f. 45. (*April* 8, 1826,) has for some time been affected with cough, expectoration, and quick respiration; nausea, colic, costiveness, hæmorrhæ ex ano; a weak pulse, red urine, glassy eye. (*Digitalis, scilla.*) 10th,—Animal faculties low; from the med? pain at scapula relieved; tongue white; pulse less quick and feeble; sickness on coughing. (*Ol. amygdal. et alia.*) *May*.—Convalescent. *July* 27, 1829.—Her old complaints had recurred, and persisted in greater or less severity; she now has extreme anasarca, with ascites, but little cough. (*Scarificatio crurum, e. canth. ether, scilla, digitalis.*) 28—Enormous draining from the leg, which has relieved the head of stupor, the respiration is less oppressed, the pulse low. 29, Death, at 9, a. m.

Inspection, 4 hours, p. m.—The dropsy gone; much emaciation. The lungs adherent at the upper back part of the chest, very much indurated, full of hard tubercles, and ulcers as large as almonds, membranes lining their cavities, not a red vessel to be seen in them: the anterior thin edges of the lungs were healthy. On the surface of the heart, a firm pellucid clot of lymph. A little serum in the chest. In the abdomen, much serum: the peritoneum opaque, an albuminous layer on it. The liver and spleen healthy. The interior coats of the stomach thickened; the valvulæ conniv. of the intestines large, here and there a spot of vascularity; a few of the mesenteric glands large; three large green calculi in the gall-bladder.

The tubercles in the lungs may have existed for three years. There was a family disposition to this disease. Little vestige of an acute or recent inflammatory affection; chronic-peritonitis characterised by a peculiar disposition to the exudation of coagulable lymph, and of the serum of the blood, from an alteration in its chemical qualities. Is not dropsy as much the result of morbid changes in the fluids as in the solids of the body ?

In this kind of Tubercular phthisis there is generally more ulceration of the pulmonary substance than in the soft strumous tuberculation, seen under Form I.; and the hard lining membrane distinguishes the ulceration from that exemplified in Form II.

CASE LVI.—Buchanan, m. 40, a grocer, of a strumous aspect, (Nov. 29, 1827,) ill, since an attack of scarlatina four weeks ago, of pain in the back, and side of the chest, with a short cough, little expectoration, dyspnœa, which is worse at noon-day, (from fatigue, as he stands in his shop 18 hours a day !) with fever; the belly tender, tongue white, dry; pulse small; and scanty urine, strangury, night sweats; aching of the limbs; no remedies used. (Calomel, antim. scilla, sal. cath.) 30th—Much pain in the chest on pressure, and left side of the belly; less dyspnœa, and little cough; pulse strong; the medicine purged, and made perspiration. (Miss. sang. 1lb.) Two cups of blood much cupped and sisy, a third not; pain relieved. Dec. 1st—

Severe pain at the chest has returned, and at the head, with high fever, which is now abated; pulse oppressed; the right side intolerant of pressure; griping, on using cold drinks, five stools; much clear urine; on blood (11b.) being abstracted in the erect posture there was complete relief of pain; except at the head, incomplete syncope. (E. canth. cataplasma, calomel, antim. opium, creta. salina.) This blood was not inflamed. 2nd—Much relief; mouth sore. (Interm. calom.) 3rd and 6th—Severe salivation. (Cathart. garg. ex. rosar.) 13th, Convalescent. (Cinchona.) September 1828—A similar attack in the *left* chest. (M. sang. e. canth. colchicum, scilla.)—Relief shortly. Oct. 13th—Head-ache, some fever, a little cough; pain in the limbs and sweats.—(E. c. hirud. liq. ammon. acet. pil. hydr. coloc. in rus abire.) 24th—Relief—tongue white; pulse quick. June 12th, 1829—A similar state; colchicum, &c. and ablution with vinegar, relieved a little. July 13th—Cough and bloody sputa; a white tongue; sleeplessness. (E. c. nitrat. potass. &c.) Relieved much by Guernsey air and a sea voyage. March 1830—Cough &c. which had persisted through the winter, on the 7th became worse, with breathlessness, diarrhœa, and aphthæ; on the 14th he seemed to be death-stricken; and on the 19th I found him in a dying state, the pulse and respiration low, much agony from breathlessness, incapable of lying on the right side; he had had severe pain at the epigastre for seven days. (Tr. hyosc. opii. ether.) *Evening*.—Pain in dreadful paroxysms, with a burning at the stomach; pulse more distinct; hands and feet edematous and cold. 20th—Through the night violent agony at the stomach, with soreness extending to the throat, little cough, expectoration of pus, which flows easily up the trachea;

pulseless at the wrist at 7, a. m. but his head clear, and mind calm; he has eat nothing for many days, (Acet. morphiæ, hirudines epigastrio.) *Five*, p. m. ease; he is conscious, but speechless; tranquil death in half of an hour.

Inspection—64 hours, p. m.—Extreme emaciation, blue greenish discoloration of the belly.—The left lung adherent to the ribs, much indurated, full of hard white tubercles, some as large as an almond, and softened; two cavities the size of a walnut, with membranous coats, near the adherent part of the lung, the mucous membrane of this bronchus red; much turbid fetid mucus in its air-cells, and an aspect of melanosis, (from excess of carbonaceous matter in the lung.) The *right* lung adherent, dark, containing small hard white tubercles not conferted, little induration of the intervening pulmonary substance, no vestiges of recent inflammation. The bronchial glands large and dark. The pleuræ held 3lb of dark serum. The heart large, its right cavities held fibrin, the left dark grumous blood, which had drained there after the cessation of life; the left ventricle in a state of active aneurysm. The pulmonary artery healthy. The aorta very large, its inner surface rugged or tuberculous. Much dark serum in the pericardium. The liver, darkish at the edges, and stained with bile, of which the gall-bladder was full. The spleen, kidneys, and pancreas healthy. The *stomach* exteriorly very dark, vascular; its mucous membrane at the cardia similar. The intestines healthy; in one part distended by air, in another contracted; slightly vascular in the peritoneum. The mesenteric glands large and dark.

Three weeks before death he complained that his food oppressed the stomach, yet he had a good appetite; on using medicine for costiveness he felt relieved; there was no vomiting: then diarrhœa came on. He had aphthæ two months ago, which had disappeared. He was bled largely in the winter, and again a few weeks before his death.

The last moments of life are full of interest to the pathologist. Some one grand organ dies first; its functions being generally impeded by a derangement of its sanguiferous actions. Death seldom happens from simple debility. The matter of tubercles is here also seen to be inorganic, connected in their origin with inflammation, but themselves the product of a *specific* action of the vessels which secrete them. Nothing like the pellucid vesicle of which Dr. Baron speaks of was seen, although the disease which had made such frightful progress in the *left* lung was only in its incipient state in the right. The irritation of tubercles, like that of a foreign body, seems to produce absorption of the contiguous pulmonic tissue, or condensation of it by pressure; the mass becomes enlarged by the continual deposition of new matter, until the condensed lung around it acts as a barrier to its further increase. The larger tubercles were of the caseous strumous species, like those in *Westaway*, form I. Two distinct species of

tubercles seemed to be here singularly combined; the indurant action however predominated. The state of the heart is the opposite of that in the other species of phthisis, (form I. and II.) a similar morbid action here existed in it and in the aorta, which probably was the first affected; the obstacle thereby offered to the circulation, excited the heart to stronger action; whence its enlargement. That *gastritis* should have come on in such a moribund condition of the system is very remarkable, and suggests a caution on the abuse of tonics and cordials in phthisis. In a debile state all the exciting causes of disease act with greater power; and very rarely is the system so prostrate as to be insusceptible of inflammation. Blood-letting itself may therefore be a predisponent to fatal inflammation in the end of cachectic diseases !

CASE LVII.—Bartlett, m. 40, a miner, January 1, 1829, ill for fifteen months, in consequence of immersion in the foul air disengaged by an explosion in a well, and a fall on the back; he has now extreme emaciation with a burning pain in the stomach after food; vomiting, a thin white fur on the tongue, occasional cough, a small pulse, turbid urine, costiveness. (Solut. alkal. colocynth, dec. althææ. emp. cumin. cm. opio.) 7th—Pain and acidity in the stomach. (Intr. med. st. extr. lactucæ. pil. purgant.) 14th—Same state. (Magnesia.) 21st—The stomach enlarged and tender, tongue white; he feels better on being purged. (Cucurb. cruent. ung.

hydrarg.) 30th—Symptoms continue; tremor and heat at the stomach from the inunction; a little relief after cupping, no fever, pulse slow: his diet consists of milk and whiting. (Rheum, soda, scammon.) Feb. 6—Agony at the cardia, vomiting of a sour fluid instantly after taking food, intestines very torpid after a purging from medicine, no hectic, a mucous fur on the tongue. (Tr.iodini, alkali.) 12th—Similar state. (Lactucar. ung. iodini cum opio.) March 7th—More pain and emaciation; no medicine used for a fortnight. 20th—Less pain, but constant tenderness, epigastre tumid, little vomiting, hectic, pulse 100, tongue furred, one stool in five days, subcutaneous glands of the belly large. The anterior supra clavicular chain of lymphatic glands have been enlarging for three months after salivation; they are now the size of an egg; within a few days he has become hoarse, and has much cough, with sputa and dysphagy. 24th—Death.

Inspection—24 hours post mortem—The body emaciated, of a leaden hue; the glands beneath the abdominal integuments enlarged. The lungs exteriorly of a slate color, and wasted; the posterior parts livid by position; no pleuritic adhesion; 3 oz. of serum in the chest, 4 oz. in the pericardium. In the lower lobes of the lungs were many miliary tubercles, some softened, caseous pus in them, enveloped in a membrane devoid of blood-vessels; others very hard. The lymphatic glands in the anterior mediastinum enlarged and hard. The heart thin, its veins large, black blood in the auricles, the ventricles empty. The abdominal viscera livid, glistening, the veins large; 5 oz. of serum in the peritoneal sac. A cyst resembling a hydatid on the convex

surface of the liver, holding fluid, such as is found in ranula. This viscus was sound but wasted; the spleen similar.—These organs and the stomach, colon, and pancreas were adherent, forming one morbid mass, sustained by the omentum which adhered to the left ribs. The stomach enormously indurated and thickened, the pylorus as large as an orange, its interior ulcerous, of a horrid fetor and aspect, like a schirrous mamma; no red vascularity but numerous enlarged arteries pervaded the diseased portion. The pancreas vastly enlarged and indurated, so as strongly to embrace the aorta, and nearly obliterate its lumen, being adherent to the spine. The gall-bladder healthy, full of bile. The intestines as thin as paper, containing feces. The colon as high as the sixth rib, much distended by air in one part, in another as small as a finger. The aorta inelastic—the bladder thick and vascular; a large gland or tuber on its exterior. There was air in the chest and abdomen. The glands in the neck above the clavicle were very large and hard, of a uniform aspect, not vascular, softened in their centre by a process of incipient ulceration, or gangrene, (schirrus passing into carcinoma.)—This horrid tuberculous mass seems to have been formed by a deposition of albumen or fibrin in the interstitial cellular tissue of the organs; it had exteriorly the appearance of an agglomeration of small *vesicular* tubercles, in many of them cysts were distinctly visible. So manifest was this composition in the pancreas that many portions resembled a cluster of white currants, hard and adherent, filled with opaque matter. Of the character and origin of this species of tubercular product and of *this alone*, in my opinion, Dr. Baron's descriptions and reasonings are irrefragably true—See similar

cases by Dr. Seymour, in the Med. Chirurg. Trans.—Here is a universal schirrous-tuberculant disposition, the essential cause of which must be regarded as constitutional. The lymphatic and conglomerate glands are the chief seat of this morbid action, but it is not confined to this system. The phthisical state of the lungs was a secondary affection; may it not be inferred that the tubercles in them were of a schirro-carcinomatous nature, analogous to the disease in the stomach and pancreas, and essentially different from that kind which is found in scrofulous subjects.—It is a specific mode of morbid action very different from common inflammation, but as truly situated in the sanguine or serous vascular system as that is. The pulmonary symptoms attracted notice only a little before death; the tubercles may have been long latent in the lung. The state of the intestines shews a singular cause of costiveness—defective muscular power from emaciation of those parts.

CASE LVIII.—FOX, m. 40, was under my observation from October 1824, to December 1825, affected with the usual symptoms of schirrus and cancer in the stomach. A few weeks only before his death he had cough, with expectoration and dyspnœa.

Inspection.—The right lung was adherent and coated with fibrin, exhibiting a honey-comb appearance; its substance dark, indurated, wasted without tubercles or ulceration; the right cavity of the chest was filled with purulent serum and flakes of fibrin. The left lung was

sound but adherent. The mucous membrane of the trachea and large bronchi natural, the pulmonary glands large and indurated.

Is the morbid matter separated from the small arteries, which do not admit the red particles of the blood? or is it morbid chyle which is deposited in these cachectic diseases, the blood not being perfectly elaborated?

There is no vestige of acute or common inflammation in the diseased parts. It may be a specific mode of slow inflammation by which organs are indurated, there being a peculiar disposition in the blood to separate into its elementary parts, and the consequent deposition of the solid portion: this may not be altogether owing to a larger proportion of fibrin or albumen in it, but as well to a specific action of the blood-vessels and nerves. A cupped buff-like state of the blood is in such diseases no rule for the use of blood-letting; the sanguiferous system may be very weak, and the formation of the blood most imperfect!

CASE LIX.—by Laennec, (under pneumo-thorax.) m. 65, for ten years had a cough, still continuing his labour; then sudden pain at the belly and death the same night. A case very similar occurred to E. B. after hæmoptysis without any serious symptoms.

Inspection.—The right chest larger and sonorous, much gas emitted; the lung compressed, the pleuræ

drier, no fluid, the lung adherent and an excavation in the upper lobe, its walls formed partly of pulmonary tissue, partly of cartilaginous membrane; many tubercles and melanotic tumors. The left lung adherent, containing similar tumors, and a cavity. Disease also in the brain and intestines.

Laennec advises tapping of the chest in a similar case.

See Dr. Forbes's case, m. a. 59, on the stethoscope.

§ 4.—COMPLICATED WITH DISEASE IN THE LIVER, SPLEEN, PANCREAS, &c.

See Case XL.—supra.

CASE LX.—Warren, m. 50, (May 9, 1827,) has been ill for three months; complains of a shooting pain at the epigastre, where is a tumor; he is worse on taking food, but has little sickness; pain at the loins with dysury, the urine deposits a pink sediment; cough and hoarseness; costiveness, a weak pulse, a loaded tongue, a leaden hue of the face, and much emaciation. He has been bled largely, blistered and observed abstinence. (Empl. cumini, cum opio, pil. calomel, co. inf. gentian. carb. ammon. ipecac.) 12th—Respiration more confined, more weakness, the pain at the back and stomach less; bowels regular by ol. ricini. 15th—Abdomen pustulous from the emplastre. 21st—Better. (Digital. pil. hydrarg.) 23rd—Pain at epigastre, and tenderness; no tumor at the belly; micturition easy; a thin fur on the tongue; hoarseness remains, with a deep sepulchral sound in the voice; six mucous stools in the day. (Creta

cum opio, digitalis, $\frac{1}{2}$ gr. b. d.) June 2nd—No pain, some tremor at the epigastre, the belly tumid and sonorous, bowels regular. (Omit. med.) June 3rd—Abdomen very tumid, with extensive pricking pain, and oppression on eating; constant pain at the stomach, eructations; small lumbrici voided. 7th—Acute pain at the left flank and hypogastre, worse on coughing; abdomen soft, but tumid, and tympanitic; the tongue furred, a red clean spot in its centre. 20th—Similar state; no fever, eight stools a day, little urine, pulse 120. (Scilla, digital. assafoetida, ether, opium.) 24th—After the medicine faintness, some fever, dysury, fetid mucous purging, and the belly became more tumid, its veins very large; more emaciation, and an unnatural leaden aspect. (E. canth.) 28th—The diarrhœa ceased, but the breathing became more confined, the voice hoarse. Death at 8 a. m.

Inspection—46 hours p. m.—Extreme emaciation, the belly tumid, fluctuation; a large hard gland at the end of the inguinal canal over the higher abdominal ring. In the sac of the peritoneum 5lb of turbid serum, the viscera emaciated, of a dull leaden hue; some diffuse vascularity over the stomach and intestines; many hard white tubera on the peritoneum, from the size of a small pea to a pigeon's egg, more abundant at the inner inguinal ring, constituting a chain of diseased lymphatic glands in connection with the external glands; the tubera also extended along the spine, over the diaphragm, omenta, inferior surface of the liver, gall bladder. and mesentery. They seemed to be formed in its peritoneum, and not to consist of the lacteal glands. The interior of the liver and kidneys was sound, the

spleen indurated and granular; the pancreas enlarged, adherent to the spleen, containing ichorus pus. The mucous coat of the stomach and intestines was soft and darkish. In the chest, 3lb of pale serum; some tubera on the pleura; the pleura of the right lung exhibited a honey-comb texture, with lax cellular adhesions; this lung was very soft and emaciated, so as to resemble a spongy mass of cellular tissue; the interstices of which were filled with limpid serum; its substance was entirely *absorbed*, its tenacity destroyed!

Warren never vomited, he had no early or habitual dysentery; dysury, pain at the epigastre and back, with tumor of the belly, and atrophy, were the chief complaints. The disease is said to have begun, or more probably to have been exacerbated, in a chill, after hard working in a gas-factory, five months ago.

This species may be termed Scirrho-cancerous phthisis. In nature it is allied to the hard white tubercular lung; the tubercle here seen is certainly a distinct species; its origin *not* inflammatory—a truly cachectic affection. This tuber is an adventitious product, not a morbid change of the lymphatic glands exclusively, although these are also affected; for no such glands exist in serous membranes.

None of the characters of an inflammatory disease are seen in the symptoms, or the morbid appearances; but its external exciting causes are similar to those

of the phlegmasiæ. Had the *gas* any specific effect on the constitution? In the case of Pridham, LIX., the effluvia in a soap factory had a very noxious influence. Disease in the lungs is attendant on nearly all the chronic cachectic diseases of the abdominal viscera, and often the immediate cause of death.

See Dr. BARON on tuberculous diseases.

§ 5.—COMPLICATED WITH DISEASE OF THE HEART,
AND ENTHORACIC GLANDS.

See cases 40, 156, 57, *supra*.

Cases by Dr. Forbes, illustration of Stetoscope, f. a. 60.

..... ditto	important case m. a. 30.
..... ditto	case I. 30.
..... ditto	.. II. 60.
..... ditto	.. VI. 48.
..... ditto	.. VIII.
..... ditto	.. IX. 40.
..... ditto	.. X. f. a. 21.

CASE—(By Dr. Bright, Medical Reports.)—Of bony expectoration; the matter contained in the centre of the bronchial glands; yet no ulcerous outlet discernible.’

Verheyen asserts that these glands have an excretory duct.

Case—Guy’s Hospital Reports, 1828, f. a. 42. N. B.

Case by Laennec, m. 45, confirmatory of Allan Burn’s remark on the relation of this form of phthisis to diseased heart.

Case by Dr. T. Young, p. 311, from Hall.

§ 6.—COMPLICATED WITH DISEASE IN THE BRAIN.

CASE LXI.—Rendel, m. a. 60, of a tense spare habit, and temperate, (August, 1829,) has long had pain at the head, vertigo, and a gradual loss of vision, more entire in the *right* eye, which is small and retracted, while the *left* is large and protruded. In September he had much aching through the forehead; complete blindness on the right eye, but the pupil was moveable, the sight of the left imperfect. Various means were used at the Eye Infirmary without effect. At the end of Oct. he had a severe attack of pain in the right side, for which he was once bled; he then went into the Poor-house Hospital, where cough and dyspnœa continued, and the disorder in the head, with low nightly delirium, increased. Dec. 8th—Little cura adopted;—death this morning.

Inspection—10 hrs. p. m.—Much blood in the integuments of the head, the inner table of the frontal bone at the sinusses and crista galli was widely separated from the exterior, and inclined inwards on the brain; the left orbitar plate destroyed; the back part of the orbit filled by a tumor the size of a large walnut, of a cystic honey-comb structure, of a bony hardness, its cells small, filled with fluid like white of egg and honey; it had nearly corroded the left temple, and extended into the posterior nares; through it passed the third pair of nerves, enlarged and softened; the optic nerve which also passed through its lower part was small; as was the eye-ball, but not evidently diseased. The tumor adhered by a glutinous substance to the temporal bone

and to the eye-ball; appearing to have corroded all the parts it touched; it extended to the right orbit, the plate of which was partially carious; all the processes of the ethmoid bone and the vomer were carious, or softened, so as to be easily cut out. The brain and cerebellum small, soft, bloody points in it; 1 oz. of serum in the ventricles; a small hydatid in the choroid plexus. The left lung adherent at its anterior part; it did not collapse on the chest being opened; its posterior part vascular; its bronchia loaded with frothy serum; no induration except at one spot of its anterior part, where was some coagulable lymph on its pleura; the mucous membrane of the bronchi not vascular; no blood in the lung; black matter but no serum in the cellular texture and bronchial glands; the right lung firmly adherent to the chest and pericardium; all its lobes consolidated, like *pudding-stone*, rather shrunken, *not an air-cell or blood-vessel visible*; no distinct tubercle. The disease had been allowed to work its disorganising effects without control. No serum in the chest; some in the pericardium.—The heart pale and flabby.

The serous effusion into the air-cells of the left lung was the immediate cause of death; but *simple* inflammation will not explain the remarkable induration here seen; *hepatisation* does not express this condition of the lung; it is truly a scirrhus state, a peculiar phthisical induration.—Ulceration is not an essential component part of the phthisical disorganisation.—The malignant tumor in the head shows that there

was a specific cachectic action and disposition in the constitution; a peculiar mode of vascular action, conjoined with a specific state of the blood.

CASE LXII. by Laennec.—In a Negro, a deep ulcer on the temple, diarrhœa, dry cough, irregular fever, no dyspnœa,—death in a month.

Inspection.—Temporal bone carious; tubercles on the exterior of this part of the cranium. The right lung compressed by a caseous tubercular growth on the pleura, which filled the chest; some part had penetrated the carious ribs and adhered under the skin; the lung beneath it *sound*; a little serum in the left chest, and in the belly; the mesentery sound; the liver morbid.

See Case vii. by Dr. Forbes, on the stetoscope.

LITERARY DIAGNOSTIC HISTORY OF THE FOURTH FORM.

HIPPOCRATES de Glandulis, ed Fœsii, p. 278, distinctly describes this species;—‘Asthma, and ξηραι φθινοες, quick and difficult respiration; the lung πωρος γίνεται (is hardened,) and the sick becomes εμπνοος (tabid.) These diseases also have other causes.’—He displays considerable acumen in discrimination, and

notwithstanding his many errors from the then imperfect state of anatomy and physiology, his works richly repay the labor of studying them, from their admirable exemplification of the qualities of the genuine animi medici, and the spirit of comprehensive observation, which is naturally caught by imitation from such a master-mind. See also *de morbis* Lib. i. p. 450. for the varieties of *suppuration* in the lung, which ends in phthisis; and page 453, 478, and 479. He distinctly remarks on ulceration in the larynx and trachea, and on tubercular lung, page 481; on apostematous phthisis p. 492—95; on hæmoptoic phthisis p. 531; and on the simple remittent form, (as in sect. 1, above) at p. 537.

SYDENHAM's *first* variety;—‘he perishes in the summer by a distemper occasioned in the foregoing winter, with hectic’—and his *third* variety, ‘suppuration, pleurisy and fever’—belong to this form.

HOFFMAN speaks of cases very like confirmed phthisis which lasted for many years, and were susceptible of relief by medicine. Therefore despondency and the disuse of medicine are very wrong; of which I have seen impressive examples.

STOLL says that pituitous phthisis, (i. e. catarrhal, with mucous sputa) *ends* in ulceration of the lungs; they are found heavy, with some whitish tubercles; and the mesentery is also affected; it is incurable! It

is manifest that this is a distinct species from that under the first form, p. 10.

Dr. FOTHERGILL's awful portrait refers to this form; 'an emaciated figure, forehead covered with drops of sweat, cheeks livid-crimson, eyes sunk, all the fat wasted, pulse quick and tremulous, nails incurvate, palms of the hands hot and dry, breath offensive, respiration laborious, and cough incessant—the objects of anger and compassion'!—'If the disorder is neglected, pleuritic pains follow, and phlegm streaked with blood—still by proper remedies the cough abates, and the sputa become more viscid.' *Works*, by Dr. Lettsom.

TISSOT gives an admirable history of this form; he regards it as a sequel of peripneumony :—by mala praxi the inflamed vessels cannot unload themselves, an abscess is formed which remains long enclosed in its bag—*sudden death by its large rupture when least expected*: signs of it—after 14 days of acute inflammation, quick pulse, shivering, difficult breathing, fever, cough on every motion, sleepless, pulse affected by the slightest causes, as heat, motion; sweating on the breast, anxiety, urine oily, voice hoarse, eyes hollow,' &c.

BOERRHAAVE's portrait of phthisis, (Aphorismi de morbis,) after hæmoptysis and inflammation, is equally horrid and true; the improper suppression of hæmoptysis by *Styptics* is said to be the antecedent.

MORTON says that syphilitic phthisis is of the asthmatic kind. Probably by asthma he intends *dyspnœa*, with secretion of viscid mucus, which Dr. Home terms the dry asthma, from indurated lung. See the case of *Geach* LV. He describes a case of this form as ‘irritation in the trachea, originating from a callus in the bronchus, as a stone in the bladder produces a pain at the end of the urethra; the cough is not catarrhal, but dry.’ Some cases of his ‘nervous atrophy, i. e. from tuberculous disease in serous membranes, belong here.

STAHL observes of this species that exacerbation on repeated inspiration, with a sense of local obstruction, is a test of its phthisical nature.’

Dr. RUSH’s three aspects, ‘the inflammatory, hectic, and typhous’ are more distinctly seen in succession in this form than in the others.

PORTAL remarks that if ‘the Jugulars are not emptied during a deep inspiration, the lungs are obstructed;’—more especially in combination with a diseased heart. ‘In the peripneumonic species of phthisis the bronchial glands are the seat of disease, but they are sound in the constitutional consumption.’ This is true in cases of tuberculous disease in the serous membranes (see § 3 and 4) of the chest and abdomen; but this is not the essential pathological difference in these two species of consumption; the bronchial glands

are sometimes the seat of the scrofulous tubercles seen in form I.

Dr. FORDYCE discusses under the term chronic asthma the winter cough and dyspnœa from peripneumony, which ends in chronic phthisis; this mode of asthma is a distinct affection from the *spasmodic* disorder of the air-tubes.

BAYLE describes a 'species of phthisis continuing for many years;—ulcers found by the tubercles,—a purely local disease;' such is his second species, the *granular* phthisis, which he regards as originating in inflammation; it is 'marked by hæmoptysis, an oppressive dry cough, then catarrhal glairy sputa, then hectic and emaciation'—but there are irregularities in the combination of the symptoms. Certain also of his cases of cancerous phthisis are to be placed here;—'dyspnœa, cough, slight pains white sputa, a sallow leaden hue of the skin, are the symptoms:' in the same class are some melanotic cases which are chronic, obscure, attended by great emaciation, slight cough, viscid whitish sputa, pulse a little quick, edema.'

Dr. J. BUXTON in 1809, p. 9. well describes the 'winter-cough—sputa with emaciation, tightness and pain at the chest which after some years ends in phthisis.' Beddoes says after seven years; Hippocrates *nine*. The cough, the leading feature' (unlike the first

species) ‘and the temperature of the season always influencing its presence or absence. Consumption from winter cough is more frequently attended with dropsy; often fatal from an attack of active peripneumony; if the dropsy occur at the beginning of spring, the chance of recovery is greater.’ But many cases die in the spring, or summer, as Sydenham observed; and Dr. B. himself remarks, p. 64, that in some the complaints increase in May and *June*.

Dr. M. Good’s genus vi, (of the order pneumonica) pleuralgia chronica, is a disease in the periosteum of the thorax, which sometimes ends fatally as phthisis; Hippocrates notes it under the term tubercle in the side.

Dr. PARR’s description of Asthma (London Medical Dict.) applies only to this form of consumption: ‘it ends in tubercular and ulcerous lung;—the symptoms are hectic, dropsy, diarrhœa, palpitation, fainting, (he did not recognise what Corvisart has well shewn, that the latter symptoms are symptomatic of diseased heart) the dropsy is very fatal.’

LAENNEC says that ‘melanosis should be removed from phthisis, or we should place here chronic pleurisy and all affections attended by emaciation and dyspnœa.’ This is not exact, for these symptoms arise from diseased liver and other species of the genus *physconia*; but all cases of cough and dyspnœa with which emaci-

ation and expectoration are commonly conjoined, from disorganisation or morbid action in the *lung*, are, in a practical sense, to be regarded as pulmonary phthisis. The value of methodical nosology is, that it teaches the various organic lesions and actions of a different pathological nature which occur under similar symptoms, or such as present fine shades of diversity. It is possible indeed to refine too much in our divisions for the purposes of practical medicine, the consilia of which are founded more on the general nature of disorders wherein the broader characters point out an important affinity. In the cure of diseases we should regard not so much the organic lesion as the symptoms and the vital actions which induce them. He regards chronic pleurisy, such as is seen in phthisical cases, as a specific mode of inflammation, not distinguished from the acute by *duration* merely; no intense fever or pain; it is conjoined with tubercular disease in the lungs and elsewhere; a contracted chest and shortness of breath the consequence,—the lung being bound down and the fluid resorbed. The chronic cases had tolerable health for years with catarrh and some dyspnœa, but little emaciation or fever.’ The sputa, he observes, are copious and ropy in the first stage of granular phthisis, but quite the contrary sometimes as in case XXXVIII. Graham, sect. 1. Laennec’s symptoms of *acute* bronchitis are often seen in this form;—‘change of voice, dyspnœa,

expectoration of viscid mucus, the cough hard, irritant; the sputa in the first stage similar to that of early phthisis, gray, semi-transparent, gelatinous with darker spots in them; and in the last stage also as in phthisis.' The fact is that in the early and often in the last stage of the present species of consumption acute inflammation exists in the bronchial membrane, but it is different from the scrofulous inflammation seen in the first and second forms. He admits that the albuminous sputa seen in chronic bronchitis, and the bad cough in fits with little dyspnoea, are found in phthisis with cicatrised lung. His description of melanotic disease in the lungs accords with Bayle's, 'a constitutional malady (but the character of the constitution is different from the scrofulous;) the symptoms are diminution of the vital powers, emaciation, dropsy of the cellular and serous membranes, no continuous fever, which is diagnostic, for in tuberculous consumption there is hectic; the local effects are cough, dyspnoea, without sputa, or with muco-purulent sputa.' This is very like the typhous state of chronic phthisis in which the hard tubercle and ulceration of the lung are chiefly found; e. g. case of Edwards, § 3, p. 140.

Dr. ABERCROMBIE confirms my views of the present form being pathologically distinct from the strumous tuberculous phthisis, and marked by distinct exter-

nal characters. Simple chronic inflammation in the lung and pleura will be attended by the symptoms of phthisis, and be fatal without tubercles or ulcers; BROUSSAIS met with many such cases in the army. It is of importance to remark that in its worst species, inflammation is often insidiously complicated, and becomes the immediate cause of death.

Bayle, Broussais, Laennec, Forbes, &c. have given cases of ‘chronic pleurisy which simulate hydrothorax and phthisis; a fatal and long malady. Percussion gives a dull sound, and the voice by the stethoscope is (chevrotante) broken, or trembling.’

NYSTEN also remarks that ‘chronic pleurisy resembles phthisis and *ends in it*.’

Dr. Abercrombie observes that this species of consumption ‘admits of repeated relief; (the phthisical radix remaining;) yet that it is a form the most hopeless and intractable.’ We can never resolve the induration of the lung, *that* will remain; and yet all the symptoms of pulmonary disorder may subside.—‘Sometimes there is no expectoration;’—‘its outset is attended with acute inflammatory symptoms.’

Dr. HASTINGS notices the present form, (on *Bronchitis*, p. 239)—‘in pulmonic affections consequent on tuberculous peritoneum, the whole texture of the lung is much disorganised;’ but in general ‘the pulmonary affection is confined to the bronchial membrane;’ the

case is then to be referred to the Third Form—the catarrhal phthisis.

In assuming that the present form of consumption is a local malady, as distinguished from the first and second forms, I mean not that the morbid action is confined to the lungs, for it often affects many organs, (see case of Warren, page 150;) but it is more referable to causes which act locally, and in a constitution previously healthy; and one lung being often diseased refers to a local origin.

CHAPTER I.—PART II.

COMMENTARIES ON PARTICULAR SYMPTOMS:

A PHYSIOLOGICAL EXPLANATION OF THEIR CAUSES,
AND AN ESTIMATE OF THEIR DIAGNOSTIC AND
PROGNOSTIC VALUE.

COUGH.—Dr. Duncan says that ‘cough is an essential symptom,’—and Dr. Fothergill, that ‘it exists at the beginning of most consumptions;’ but there may be little cough either when the lung around tubercles is uninflamed, before their being softened—or when the bronchial membrane is natural, although the pulmonic

substance be seriously disorganised—or when the lung being cavernous, there is a secretion of bland humor from the walls of the cavity, and its excretion by the air-tubes is easy—or lastly, when shortly before death there is much debility in the muscular, and torpor in the nervous, system. It is important not to be deluded by the cessation of the cough, which is not uncommon in the last days of the consumptive ! Louis took notice that ‘some of his cases had cough only in the last days of life ; in others it had ceased, and recurred at the end ; yet tuberculous cavities were discovered. It existed at the *outset* in a *tenth* of the cases, for some weeks dry, then with clear sputa.’ Dr. W. Philip says, I think erroneously, ‘that cough is a constant symptom on all inflammations in the enthoracic viscera ; that *vomiting* is characteristic of a phthisical cough.’¹— ‘Violent spasmodic cough, alternately with a dry cough, marks incipient (tubercular) consumption.’¹— ‘Incessant cough is *not* prognostic of a particularly dangerous disease.’² Nor does a mild cough betoken a lenient affection. ‘The *raucons* dry cough denotes phthisis.’³ ‘This is to be distinguished from a *nervous* cough,’—i. e. a short convulsive cough from morbid sensibility, when there is nothing to be excreted,—‘in Chlorosis,’ which closely resembles phthisis : ‘it is excited by emotions of the mind, the pulse being little

1—Dr. Beddoes. 2—Dr. Parr. 3—Dr. Robertson.

'affected.' 4 This nervous cough may arise either from the nervous system being exquisitely sensible, so that the Bronchial membrane cannot endure the ordinary atmospheric stimuli which are constantly applied to it; whence arises a truly spasmodic cough:—or, secondly, from a special sensibility and irritation of the pulmonic plexus of the eighth nerves, in sympathy with a *disordered stomach*, forming the 'Tussis furibundus' of Etmuller, which is often seen in the case of intestinal worms;—or, lastly, what is very rare, the nervous cough may arise from a convulsive action of the intercostal muscles and diaphragm, from a morbid condition of their nerves, or of the spinal chord.

There is much variety in the characters of the cough; 'in broken wind (or *emphysema* of the lung) it is peculiar, feeble, with a jerky action of the respiratory muscles.' 5 In chronic Bronchitis it is clear, hollow sounding; dull and husky in dropsy of the lung; grave and hollow in a cavernous state of the lung.

Several designations have been affixed to the cough, according to the various seats of its *proximate cause*; first, in the larynx, trachea, and bronchi; secondly, in the lungs; thirdly, in the chest, and respiratory muscles.

1.—Dr. Friend remarks that 'if there is no dyspnœa, the cough is rather from the glands of the trachea than

from the lungs.' This Dr. Pringle termed a '*catarrhal* cough.' Celsus observed that 'exulceration of the *fauces* occasioned cough.' So also an abscess in the pharynx will simulate phthisis. The Laryngeal cough is peculiarly husky, with wheezing.

Simple inflammation in the air-tubes may be the cause of cough; or irritation from the matter of decomposed tubercles;—or, it may arise from morbid secretions in the air-passages from deranged digestion; or, from a dry and irritable state of the mucous membrane; or, 'from morbid sensibility of the part, whereby the natural mucus becomes irritant.' 6

2.—The cause of the lung-cough may be—1st, in the *blood-vessels*, they being plethoric; (*a*)—from inflammation in the lung, or in the pleura alone—for from the connections of the bronchial and intercostal arteries a morbid determination of blood into these will also affect the former, and induce a sense of obstruction in the lung.

Dr. J. Hamilton gravely states its cause in children to be often not inflammation, but torpor of the lymphatics; i. e. defective absorption of the lymph, or deficient transmission of new chyle, whence the blood is effete. (*b*) Vascular plethora will arise also from constriction of the bronchial *exhalants* by a change of temperature. (*c*) From impeded circulation through the heart.—

2ndly—The cause may be a sympathetic affection of the pulmonic plexuses of the *nervus vagus* from disorder of the stomach. Hoffman has described it as a vellication of the bronchia by consent, or sympathy, and remarked that ‘the stomach cough’ was worse on an empty stomach; Dr. W. Philip has well shewn how the lungs suffer when the eighth nerves are injured.—

3rdly—Hard tubercles in the lungs, or irritation in the sensitive surfaces of ulcerous or tuberculous excavations, may be a cause of cough; but it subsides when a cartilaginous membrane line the cavities.

3rd.—The third seat of the cause of cough is the respiratory muscles, which are thrown into convulsive action from irritation in the origin of their nerves; or simply from habit, as any inordinate muscular action forms a disposition to its repetition.

The effects of the cough are serious; for although it is an effect of nature to expel something noxious, it has an injurious influence, from its *concussion*, on the circulation in the lungs, heart, and *brain*, and it impedes the return of the blood from the abdominal viscera;—a certain person could make an ulcer in the leg bleed by holding his breath! Galen and Silvaticus regarded it as the great obstacle to the cure of pulmonary disorders; Turner thought it to hasten the suppuration of tubercles; Fordyce remarks that a ‘dry cough does mischief.’

EXPECTORATION.—Hippocrates—p. 179 oper. om. observes that ‘ saltish, and then sweetish sputa indicate suppuration.’ He lays much stress on their qualities, as they are the grand means of relieving inflammation. ‘ Mucous sputa are sub-glutinous and white; laudable pus is *ομοχροον κ αφλεμαντον*, i. e. sine pituita et ejusdem coloris;’—this cream-like pus I have often observed in a tranquil state of the disease; and viscid discolored mucus (‘ blackish or æruginous ’) around the pus always marks existing inflammation in the lung, which materially accelerates the fatal event.—‘ If fetor in the pus a relapse destroys them, although they seem pretty well;’ (gangrene is portended) —‘ so if a probe is stained by the pus it is fatal. If the sputum in the consumptive yields a fetid odor on being cast upon the fire, and the hair fall off,—they die.—If the sputa sink in sea-water, it is fatal. If there is a suppression of the sputa in the tabid, a danger of delirium; but if *piles* bleed there is safety. Bloody sputa seem to indicate the fatal ending of liver complaints.’ He also says under peri-pleumony, ‘ if the disease shall not cease in eighteen days, ask if the spittle is sweetish, if he shall say *yes*, the disease will remain a year, for the lung is *εμπνος*, suppurate.’ So under Phyma (tubercle) in the lung, p. 481, ‘ if with vomit he gives out pus, and if it is white, and the shreds in it are bloody, he escapes;—if livid, green, and bad smelling—he dies.’ Again, p. 492, ‘ if the spittle is unpleasant, the state of the disease is *mortal*.

Boerrhaave, under emphysema says, that ‘if the pus is white, smooth, equal, fetor-less, the prognosis is good.’ I have seen remarkable relief even in an advanced state of phthisis, where these characters were observed. ‘If the pus is dark, ichorous, with fetid fibrils’ (i. e. the debris of disorganised lung.) ‘death, or phthisis is the issue.’

Huxham and Tissot observe, that ‘inflammation supervening around a vomica stops expectoration.’

Morgagni observed matter coughed up like *hail*,—(once falsely supposed to be tubercles torn off from the lungs,) ‘a scruple in weight, some very hard; the symptoms are long dry cough, and dyspnœa, sometimes with acute pain and hæmoptœ.’

Bennett, 1654, found ash-coloured clay-like sputa to be a fatal symptom,—the lung was disorganised.

Fordyce says that ‘the discharge is stimulant, as it contains the salts of the blood; in catarrh it ulcerates the mucous membrane, and consumption ensues; the mucus is changed into pus. The sputa are secreted from glands, when acrid they increase inflammation; if streaked with blood by exhalation it is a good sign; blood is seen in points on the sputa when a small vessel is burst; dirty, blue, adhesive mucus glues the air-cells together, and suffocation ensues; brown sputa show that a tubercle is broken down,—a danger of an ulcer; dried mucus torn off from *spurious* tubercles,—no ul-

ceration follows!’ ‘Such little masses are formed and spit up in catarrh. An increased action of the arteries is the cause of greater secretion;—yellow oleaginous sputa, are good in peripneumony.’

Fothergill regards the thickening of the sputa as a sign of relief, but sometimes it is the contrary. Darwin’s chemical test of the sputa is —‘to dissolve them in sulphuric acid and in aqua potassæ, then add water to each; if a precipitate happens in *both* there is some pus; if in neither it is only *mucus*. Corrosive sublimate coagulates pus, not mucus.’—This however is not a distinctive mark of a *fatal* from an innocuous malady.—Cullen observes that *pus* is opaque, less coherent, friable, from agitation in water broken into ragged fragments; and water precipitates pus from its solution in caustic alkali.’—Dr. White, 1792, states that ‘pus *without* ulceration becomes *acid* when kept, but it is mixed, when there *is* ulceration, with putrescent blood and particles of the solids, yielding a fetid smell when exposed to heat.’—Frank truly observes that ‘the sputa in chronic catarrh (i. e. the *sanable* affection,) although purulent are lighter than in genuine consumption.’—Brown says that they are more copious in simple catarrh.

Dr. Rush maintains that the ‘nature of the substance discharged is of as little consequence as in dropsy.’ Now Drs. Blackall and Bright have well shown that

in this disorder the qualities of the urine are of important consequences; and in phthisis I believe that the sputa will distinguish the curable from the insurable cases! ‘The mucous membrane of the bronchi communicating with a vomica is always inflamed,’—(the semi-putrid tuberculous matter being irritant to it as well as to the intestines)—‘and this inflamed membrane is the source of a great portion of the sputa of the consumptive, even when some part is from softened tubercles; purulent sputa, or other sputa, are not always present.’⁷—‘It is possible to distinguish the puriform mucus of the bronchial membrane from the tuberculous pus.’^{*} Cruickshank observed ‘purulent sputa in catarrh, and no ulceration in the lung.’

‘Mucous sputa are found in all the species of phthisis.’⁸ In a fatal case by Dr. Southey the sputa were mucous to the last. Dr. Duncan observes that ‘before the rise of hectic the sputa will not distinguish phthisis from (simple) chronic catarrh;’ meaning that the sputa are *not* purulent in the early stage of phthisis, and assuming that in the innocent malady no *pus* will be found; which is incorrect. ‘Even where the symptoms are alarming there is sometimes no expectoration.—The sputa consist of the caseous substance fringed with

* Dr. Baillie, Morbid Anat. p. 96, adopts Stark’s view.

7—Stark. 8—Portal.

a little true pus,—the product of the cyst, and of the mucous membrane of the bronchia. Calculi of the lungs are formed of the animal fluids.’⁹ Dr. Pearson says they consist of phosphate of lime.

Dr. W. Philip distinguishes pus from inflammation, *without* ulceration, as homogeneous, yellowish, like cream, sweetish, without fetor, whereas *granules* of much fetor indicate latent vomicæ;—but even these are seen without bad results;’ e. g. shreds of fibrin in the form of the bronchial cells or tubes from simple inflammatory action are coughed up, forming the bronchial polypi of the elder writers. A remarkable specimen of this as large as a caterpillar, expectorated by a gentleman of a consumptive family, was shown to me by my friend Dr. Yonge.

Dr. Pearson, Phil. Trans. 1809, admirably distinguishes the varieties of the sputa: 1—Gelatinous mucus, sinking, containing a few globules visible by the microscope—(connected with inflammation in the lungs.) 2—‘Catarrhal transparent sputa, which become fetid sooner than pus. 3—Opake tenacious matter, from unsoftened tubercles, or peripneumony;’ (See the cases under forms I. and IV.) 4.—Puriform, coagulating at 160° (from suppurative action in the bronchial membrane, which may be sanable, or in the cyst lining a cavity in the lung. 5—‘Sputa composed of the kinds in

nos. 2, 3, 4.' (i. e. simple clear mucus, viscid mucus, and puriform; showing a complication of co-existent morbid actions before the softening of tubercles.) 6—Matter from tubercles, or vomica;—known by its quantity as well as qualities. 7—Matter from a vomica,' (i. e. a simple abscess) not tuberculous.' It is certain from the histories in ch. I. that all these varieties of morbid action and condition do exist; and the characters of the sputa in each may be learnt by careful observation. Dr. P. further remarks that '*pus* is inspissated by muriat of ammonia, and *not* mucus—curdy *pus* contains coagulable lymph'—or albumen, which I have found connected with *inflammation* in the lung. 'The black stuff in the bronchial glands is charcoal from the atmosphere.'

Sir E. Home's remarks on *pus* in ulcers may serve to illustrate the sputa of the consumptive:—*pus* is uniformly preceded by inflammation; on a blistered sore it was formed in twenty hours, and in the urethra in five hours; in indolent ulcers there are flaky particles with the globules; abscesses filled with *flaky* matter are found *without* inflammation.' Such are styled 'chronic abscesses'; I believe them generally to be of a *scrofulous* nature, from a specific mode of *inflammation*; for I find this flakiness in the sputa of the consumptive in connection with unequivocal symptoms of inflammation in the lung. In some cases however there seems to be

a deposition of albumen, such as happens in the kidneys in dropsy. without inflammation; such a deposition forms the pale hardened lung, which is very different from the hepatisation connected with acute inflammation.

Home further remarks that in ‘irritable sores there is a thicker discharge, and fewer globules;’—a similar kind of sputa also indicates an increment of the morbid action in the lung.

Dr. T. Young says that ‘pus-globules are formed of blood-globules;—put the matter betwixt glasses, hold them to the eye; look through it to a candle, a *corona* of *colors* is seen around the candle if it is pus;—if *mucus* no ring of colors, but a red area. —The characters of the sputa are not of practical utility.’ —I think them on the contrary to be very important. ‘In one variety all the sputa are a secretion from the bronchial membrane. (e. g. in Form III.) The sputa cease before death as the arteries have lost the power of secreting.

Laennec, as I have stated in p. 5, regards the sputa as diagnostic of the stages of phthisis;—‘the other symptoms are not accordant with the nature of the sputa,—there is hectic, emaciation, and even death before expectoration. The sputa are from the bronchial membrane, not the lining membrane of the cavity.’ Tenacious, yellow, greenish, viscid sputa are characteristic of peripneumony;—such are seen in phthisis, disguising the tuberculous sputum. ‘There are *watery* sputa in edema (or dropsy) of the lung.’

Bayle says 'there is often *no* pus in the ulcerous consumption;' *purulent* sputa then are not a distinctive mark of confirmed phthisis, as Cullen regarded them. '*Sebaceous* particles which grease paper are mistaken for tubercles; the *odor* of sputa is important; the mucus membrane is found to be *pale*, and the bronchia dilated, yet copious puriform sputa in life; *fibrinous* sputa in bronchitis.' 10

Louis remarks that 'some debris of the pulmonary substance are found in the sputa; in the second stage they are green, opake, lacerated; their aspect is important; at times particles in them like dressed rice; the round sputa characteristic;—their excretion may be suspended,—in one case no expectoration at any period of the malady. In the first stage the bronchia are the source of the sputa, afterwards they are secreted by the walls of the excavation;' (are not these often inorganic?)—'the bronchia are found red only near excavations, not near grey tubercles. Bloody sputa are frequent in the last days of life, and sometimes they have a putrid animal odor, from gangrene of the grey matter in the cavity.' See cases under Form II.

From the analogy of external *ulcers*, and the various discharges from them, I believe that we may, from the sputa of the consumptive, form a judgment on the kind and state of the pulmonary disorganisation;—

indeed these, with the characters of the constitution, are the only index of the pathological condition of the lung. 1st—In the ‘*indolent* ulcer e. g. there is copious thin pus.’¹¹ Is not this analogous to the catarrhal or phlegmatic phthisis, in which inflammatory action is low, with ulcers in the bronchial membrane? 2nd—‘In the *callous* ulcer, the margin elevated and indurated, there is little discharge of pus, no restorative actions;’ is not this like the dry asthmatic inflammatory phthisis, where the lung is indurated? 3rd—‘There is the *varicose* ulcer;’—i. e. from chronic inflammation depending on a morbid state of the veins, as Darwin observed; there is congestion of blood in the lungs, the sputa are copious; this form is seen chiefly in the scrofulous habit, with asthenic bronchitis; hæmoptysis often at the outset. 4th—‘*Inflamed* ulcers; inflammation is generally the cause of ulcerative absorption;’ (but it admits of doubt if the relation of the ulcerated lung which is seen in Form II. to inflammation is such as to require the treatment proper to it;)—‘painful irritable sores are these inflamed ulcers;’—so in the corresponding form of ulcerous lung there is cough, sputa, fever, local pain and heat; ‘unhealthy pus and streaks of blood, and then, fetid, glutinous fluid, termed *ichor*, *sordes*, sanies,—sloughing is combined and bleeding.’ 5th and 6th species—‘the sloughing and corroding

¹¹—Lawrence’s lectures on Ulcers, 1829.

ulcers; thin or viscid, fetid, sanious fluid from them;’
e. g. *cases in Form II.*

‘Foramina are seen on the bronchial membrane—the ducts of mucous glands; bland mucus sinks in water, thick straw-colored opaque mucus shows chronic inflammation, it is purulent without ulceration; viscid nodules are from the sacculi laryngis; mucus is rendered more saline and acrid by inflammation. Tubular coagulable lymph from the bronchia by effusion of blood without inflammation.’ ¹² An example of this in *Mew*, form iv. But sometimes it is from acute inflammation, e. g. in *croup*, as Ruysch observed. ‘There are numerous glands in the sensible mucous membrane which lines the larynx and trachea.’ ¹³ These are the fruitful source of sputa. Expectoration is not a sign of a primary congestion in the *bronchial* membrane, it may be merely a symptom of Tubercles, which are the cause, as well as the effect, of a derangement in the pulmonary circulation; there may be a catarrh from the mucous membrane, with only the natural quantity of blood in the lungs, if its transit is impeded in the pulmonary blood-vessels, as injections will transude from them into the air-cells.

12—C. Bell.

13—Heister.

HÆMOPTYSIS.—¹ ‘In spitting of blood the absence of fever is good;’ (but not invariably, e. g. Mew’s case *supra*;)—‘*αφρωδες αιμα*, and absence of [disorder] below the diaphragm shows that it is from lung; if a large vessel is burst they also vomit blood. In a long disease droppings of very *red* blood is bad.’—‘If the artery of the lungs (i. e. the trachea) shall be ulcered, or any one of the veins which are dependent into the lungs be ruptured, or some of the pipes which are extended through the lungs shall be burst into one the other, (i. e. if the bronchia be ruptured,) and be filled with blood, (chiefly from these causes—exertion, running, stripes, *strong vomits*, fevers,) these things the part suffers’ &c.—‘at first a dry cough, then he spits bloody spittle, and afterwards pure blood’ &c.

Aretæus also has three species, that by ‘rupture—by ulceration—and by anastomosis.’ There are two pathological varieties of the latter—(*a*) from an increase of the blood’s momentum, the vessels being in tonic action; (*b*) from relaxation or atony of the vessels, as in dropsy.

Celsus makes a very good distinction of effusion of blood from inflammatory orgasm, and from lesion of the blood-vessels,—*sanguinis exspuitio sine ulcere, sed ore venæ adaptæ*.—‘*A gutture et arteriis* (i. e. *bronchiis*) *exulceratis tussis sanguinem extundit*.’—

¹—Hippocrates, p. 254, and 531.—*de intern. affect.*

He well distinguishes three pathological causes of hemorrhage: 1—‘*exesa parte aliqua*; 2—*rupta*; 3—*ore venæ patefacto*. *Prima gravissime nocet, ultima minime.*’ The case of Mew is an exception to this remark. The first, he says, often happened, for *pus* followed the blood; but this is not an infallible mark of ulceration. ‘A slight flow of blood is useful while there is fever, after efforts and pain at the spine and hips;’ it relieves the inflammatory tension, as is seen in the case of epistaxis in brain-fever. Celsus also speaks of hæmoptoe when there are tubercles in the lungs—‘*tabifica destillatione in bronchiorum cava.*’

Dr. J. Harvey observed that blood came from the lungs without coughing, or pain; the blood is frothy. It is necessary to distinguish the *accidental*, from passions, heat, exercise, plethora, &c.; and the *habitual* or recurrent. The vessels of the lungs are opened, by feverish orgasm, or by ulceration.’

Huxham remarks that ‘*hæmoptysis* is from the serous arteries being so dilatable as to pass red blood per diapedesim;’ i. e. there is a transudation or exhalation of blood, not from inflammatory action but from a cachectic state of the vessels. ‘A universal spasm’ (i. e. rigor, a general affection of the system,) ‘precedes the rupture of the vessel, and is the proximate cause of the hæmoptysis.’² But there must also be a local

²—Dr. Home.

disposition to disease, which is often derived from previous organic changes.

Cullen explains the physiological causes of the frequency of hæmoptysis to be (*a*) general plethora; (*b*) a want of balance in the aortic and pulmonic circulation;—as in the case of tuberculous or hardened lung, wherein the sound permeable parts are compressed, and also in the case of chilling of the extremities. ‘It is rarely so profuse as to be immediately mortal. The blood being dark, grumous, in great quantity, with vomiting, will show it is *not* from the lungs;’ but these diagnostics are deceptive, for they occurred in Mew.—Dr. C.’s distinction of the several species is very confused; his species *vicaria* is the same as the plethorica. Recent pathologists confirm him in regarding hæmoptysis as the most constant of the symptoms of phthisis.

Ruysch, op. I. p. 134, observes that ‘wax injected by the arteries passed into the pulmonic vesicles;’ this explains hæmoptysis from excited circulation in the lungs. Graetz first detected the error of Tulpus in mistaking bronchial polypi for blood-vessels, these are tubular, those solid.—‘Hæmoptysis occurs generally at the outset of phthisis, and commences during the night from the diminution of voluntary action;’² which favors sanguine congestion in the lungs. Rush described a variety under the title ‘Apoplexy in the

lungs, suffocating ;' which is more than a simple effusion of blood into the lung,—it is connected only with a phthisical state of the organ,—a chronic cachectic disorder.

'Hæmorrhage may happen from the lungs without cough ;' e. g. cases of Mew and Henwood, pp. 126, 128. 'The quantity that may be lost without speedy or instant death is enormous.'³ 'Inflammatory action is the common cause of hæmoptysis,—the exhalants being here relaxed, and in common inflammation *contracted* ; seldom from mere laxity of the lungs ;⁴ i. e. there is also an increase of momentum in the blood's course, or sanguineous congestion in the part.

Dr. M. Good notes 'the *active* and *passive* forms' of the disorder—case XLIII. is an instance of the former ; case XLIV. of the latter. 'Tubercles compress the blood-vessels, so that by transudation or a rupture, blood is poured out,⁵—Hæmoptysis is certainly much connected with the large soft brown tubercles in a scrofulous constitution ; e. g. in Westaway, case IV. p. 16. The *congestion* of the blood, and the inordinate vascular action, is the chief cause of the effusion, in connection with various modes of disorganisation. It is an error to suppose 'that the blood is necessarily

3—Heberden 4—Fordyce.

5—Dr. James Gregory.

brought up by coughing, and that when fatal the effusion is from some large vessel.' 6

Dr. Hooper has 'five species—plethorica, violenta, phthisica, calculosa, vicaria;' this is a very confused and useless arrangement. There are Two practical varieties, that from plethora or inflammation—and that from ulceration. The blood being dark and grumous in large quantity, without cough, will not, as Dr. H. supposed, distinguish hæmatemesis from hæmoptysis; 'the blood florid, excited by coughing, and foaming,' are false criteria of the latter.

Dr. Parr thinks that we can 'distinguish bleeding from the pulmonary and the bronchial arteries.' Such a fine injection of the cellular tissue as was seen in Gorfett, case VI. seems to be chiefly from an affection of the bronchial arteries; probably *all* morbid *actions* in the lungs are situated in those arteries, for they supply the pulmonic substance as well as the mucous texture; the pulmonary arteries and veins are *conduits* for the blood, and seem to be insusceptible of idiopathic disease. Will the character of the blood distinguish the origin of its flow?—The distinction itself may be more fine than useful. Dr. P. falsely assumes that 'active hemorrhages are attended by *fever*'—some cases without fever require the most powerful anti-inflammatory remedies.

Dr. Abercrombie forms *four* varieties of hæmoptysis; I.—‘from inflammation or congestion in the *lungs*; II.—from bronchial disorder; III.—from the rupture of diseased blood-vessels, connected with tubercles, preceding phthisis; (yet he separates this from diseases truly consumptive;) IV.—from ulceration.’ It is obvious that these may be referred to two pathological genera as before stated—I. from disordered actions of the blood-vessels;—II. from disease in the textures of the part. The hæmorrhage connected with the strumous tubercle, ulcer, or inflammation, such as is exhibited in the first and second forms, are specifically distinct in a pathological and practical regard from that seen in the third and fourth forms.

Laennec says that hæmoptysis is very seldom from ruptured vessels in a vomica; bronchial exhalation is generally its cause. The variety termed *pulmonary apoplexy* is from a specific induration of the lung, defined, dark, granular, not progressive as that from inflammation, it is granite-like, homogeneous, no vestige of the natural texture, but larger air-tubes and blood vessels; (see cases XLI. XLIV. *supra*.)—There is coagulated blood which may be scraped off;—blood is also effused into the lung, and combined with it; the lung may be lacerated and filled with clots of blood;—simple sanguineous congestion can be washed

off, not so the hæmoptoic induration, although it may be bleached.' He is in error to say that resolution is easy, for all the cases restored were from bronchial exhalation. 'The apoplectic state exists in every case of severe hæmoptysis; the expectoration of blood may be slight, and the indurant engorgement severe.' (See case XL. p. 116.) It should be then styled *em-pneumonic hemorrhage*.

There is another species of sudden suffocating effusion of blood, a circumscribed extravasation of it in the lung, without intersection of vessels or air-tubes; it is likely that a previous process of *softening* had gone on in the lung, or some disease in the blood-vessels, as in the brain in common apoplexy; it differs from the bloody extravasation in per-acute peripneumony, in the suddenness of its effusion, the extent of the spitting, and the absence of a prior inflammatory affection. 'A line of demarcation distinguishes the surrounding healthy lung.' See case XXIV. p. 61.

Louis found hæmoptysis to exist in 57 cases of 87; and in 25 to a great extent; in 12 before cough or sputa; in 8 of these it was severe; and in the course of phthisis the ratio of severe examples were to the weak as 9 : 7; so that hæmoptysis, except after external violence, or a suppression of the menses, renders the existence of tubercles probable. As to the *sex*, of 42 consumptive *females* 36 had it, but of 38 males only 21!

A third part of the females, from 19 to 40 years of age, had no bloody sputa, while in those from 40 to 65, it was wanting only in a seventh; in *men* an equal number above and below 40 years had it.' From this it may be inferred that hæmoptysis is much connected with the hard, tuberculous, inflamed lung, as most of the consumptive females below 40 have the other species of the disease. Louis gives an important admonition— 'whenever you find fever of which you cannot fix the local cause, never neglect the stethoscope, especially if it has been preceded by hæmoptysis!'

Nysten observed fatal hæmoptysis where only traces of pulmonary *catarrh* were found.' The aorta or the heart is generally diseased in such cases. 'Constitutional hæmoptysis, e. g. where it is habitual, and no adequate cause exciting cause exists, always announces phthisis.'

The extreme danger of this affection is well shown by Hoffman, who knew that bronchial inflammation is one cause of it. Hæmoptysis is not diagnostic of any particular form of consumption. It generally betokens a fatal malady. If, however, it occurs early, and a powerful external remote cause can be assigned, and the subject is not scrofulous, nor the heart diseased, the prognosis is favorable.

DISORDERED RESPIRATION.—A brief allusion to the physiology of this vital function will elucidate the importance of this symptom, and its pathological causes. The ordinary law is, as Haller remarks, one respiration to four pulses, or seventeen to twenty respirations in a minute. *Two ounces troy* of solid carbon are eliminated in 24 hours, i. e. 27 inches of carbonic acid are formed per minute; or, as Dr. Bostock states, 45000 c. i. of carbonic acid gas are made in 24 hours. Some oxygen then, it would appear, must be combined with the blood; M. Edward's indeed says that *all* the oxygen is absorbed and combined, and that carbonic acid is anew secreted. 'The *decarbonising* of the blood expresses the effect of respiration.'—Mr. C. Bell says that 'carbon and hydrogen are separated from the blood, and oxygen united with it.' Hence if this function is impeded the circulating blood must be more sedative, and less capable of evolving heat; and the other emunctory organs, e. g. the skin, liver and kidneys, must assume a state of increased action, or the system will suffer.

Dr. Christison has shewn that the arterialisation of the blood is a chemical not a vital process, and that some nitrogen is exhaled; this is more especially the case in summer, for it is absorbed in winter; (which may in part explain how the consumptive die in a hot day, as it also shews that vegetable diet is required in

the former season, and animal in the latter.) ‘Most carbonic acid is produced at noon;’ hence the languor and want of fresh air then felt. ‘By breathing oxygen more carbon and nitrogen is eliminated.’ The reverse is the case in a rare and moist atmosphere. The noxious effects of disorder in this function would be more instant and general but that an eighth only of the contents of the lungs are changed in each respiration, or seventeen of the twenty one parts of the oxygen inhaled are altered. The heat evolved by a change in the capacity of the gases in respiration is absorbed into the blood, and again extricated in the conversion of arterial into venous blood;—‘respiration is a means of cooling the blood,’ as the air which enters the lungs is below their temperature; and ‘the vapor exhaled from the lungs is a means of dissipating the superfluous heat.’⁴ So there is no central fire in the lungs, yet like the sun, they are a source of heat to the system. If then the atmosphere is surcharged with moisture, less evaporation can take place, and the lungs are stimulated by the superfluous heat.

Louis says that dyspnoea is seldom severe in phthisis; this has already been shewn to be true in the earlier stage of the first and second forms; but in the fourth form in the whole of its course, and shortly before the fatal event in the others, the difficulty or defect of

4—C. Bell.

respiration is very severe. There is some confusion in the use of the terms asthma and dyspnœa; Celsus defines the former to be difficulty of breathing, with noise and panting; the sibilus is from the straits through which the breath passes: Cullen regards it as an affection of the bronchial membrane chiefly. Dyspnœa is defined by Parr, 'a spasm—a short breathing, with chronic indisposition, not intermitting.'

There is much variety in the character and constancy of this symptom in the several forms of phthisis. In the scrofulous species the breathing is usually rapid, and the patient becomes breathless on slight exertion; in some cases however there is little sensible disorder. In the third form inspiration is for the most part free; in all the forms the respiration is at times strictly asthmatic. The absence of disordered respiration does not justify a favorable prognosis; for one lung has been found to be fatally disorganised when this vital function appeared to be perfect. Laennec well remarks that the breathing bears no proportion to the expansion of the chest; and it is *abdominal*, (i. e. the diaphragm is in strong action, and the intercostals are quiescent,) when the disease is extensive.' This kind of respiration however happens in old persons, not from the extent of the pulmonary disease, but from ossification of the ribs; and conversely the chest may be largely expanded, and little air be inspired, or de-oxygenated,—the lungs being disor-

ganised. 'In inflammation of a part of the lung, the respiration is *puerile*, i. e. exalted in the sound parts;' there is a rattling and gurgling in catarrh, and softened tubercles; a hissing rattle in bronchitis; a crackling rattle in exudation of blood, in inflammation, and edema of the lung. *Percussion* gives a dull sound in catarrh and phthisis; in effusion and induration of the lung there is no sound; but is clearer when there is air in the chest.'

Painful respiration.—There is inability to lie on one side in phthisis, simply from one lung being unfit for respiration;—'pain at the chest is not always from pleuritic inflammation, or adhesion;—'most patients had pain betwixt the shoulders and sides, the result of the developement of tubercles,'⁵—and of muscular weakness, or inflammation in the periosteum of the ribs which is very severe in spurious phthisis in chlorotic females;—and from disorder in the colon, flatulent pains resembling pleuritic,'⁶—and 'from bile, in the intestines.'⁷ Indigestible aliment, which occasions morbid insensibility of the mucous membrane of the stomach, and an extrication of gas, is certainly an important exciting cause of dyspnœa, particularly in the first and second forms of phthisis, in which that membrane is frequently diseased.

The cause of this symptom is sometimes in the larynx

alone—Mayo has well illustrated this in his physiology. The affection termed ‘roaring’ in the horse is of this kind.⁸ ‘The respiration is suspended from disease in the larynx.’⁹

All the varieties of disordered respiration may be pathologically referred to two classes of causes; 1st—Such as disturb the *nervous* functions of the respiratory organs, e. g. loss of blood, emotions of the mind, noxious gases in the lungs, disorder in the stomach, &c.—and 2nd—those which affect the course of the blood, or the actions of its vessels, and thereby induce various organic lesions.

1.—Spasmodic dyspnœa will arise (*a*) from morbid sensibility of the bronchial membrane, whereby the ordinary stimulus of atmospheric air becomes irritant, or a peculiar impression is made on it by the gases extricated in respiration; and (*b*) from an affection of the pulmonic nerves, or of the intercostal and phrenic nerves;—the former is seen in an injury to the nervous *vagus*,—the latter in hysteria, and various disorders of the spinal chord.

Malpighi supposed that each pulmonal vesicle had a muscular covering; this Baillie and Bell assert not to be determined; but in the larger air-tubes there is a muscular tissue, which may be the seat of spasm.—Dr. Baillie even regards the irregular contraction of

the *trachea* as the chief cause of asthma. If there was no muscular texture in the imperfect rings of the bronchi there could be no *expectoration* of the humors in the lungs; as these can only be excreted by the contractile action of the tubes into which they are effused.

Mr. C. Bell has beautifully explained the dyspnœa from nervous disorder; see his anatomy and physiol. 6th edit. The degree of spasm of which the air-passages are susceptible is shown in that in ‘those immersed in carbonic acid gas, or submersed in water, the lungs are emptied, and the glottis closed, so that nothing can enter.’¹

Parr regards the diaphragm and intercostals as the chief seat of spasm in asthma; it is so when the spinal chord is diseased, but in phthisis the membrane of the larynx, trachea, and bronchi is chiefly affected.

Avenbrugger well observes that ‘many disorders in the lungs are sympathetic and secondary on nervous and gastric affections—that they arise from irritability of the pulmonic nerves, and are not indicated by percussion.’ In proof of this it may be stated that in asthma in a horse Mr. White found the lungs natural.’

Dr. Heberden referred asthma to a ‘disturbance of those functions attributed to the nerves.’ And Laennec remarked that asthma is at times purely nervous, but that it is rare.’

1—Mayo's Physiology.

Willis and Plater remarked that respiration is much and involuntarily affected by passions of the mind.*

Mayo observes that ‘the lungs tend to recede from the chest, and to resist the distensile effect of the air on them;’ if, then, the muscular respiratory effort is weak, this resiliency of the lungs will have the effect of a spasmodic straightening of the bronchia. Debility in the general muscular and nervous systems will also occasion dyspnœa, by impairing the action of the abdominal muscles; for these are, as Cuvier pointed out, antagonists to the diaphragm in respiration, in which they are not in a passive condition, as Dr. Bostock represents.

From the undoubted relation of asthma with phthisis it is justly regarded with serious apprehension, especially in subjects who may be believed to have a constitutional disposition to consumption.

2.—Of the second class of causes, some are (*a*) in the bronchial membrane—‘dryness, or tumefaction of it, causing a crepitant rattle;’¹²—‘an inflammatory swelling of it constricting the air-tubes;’¹³—or air and fluid in the tubes, ‘viscid mucus in it;’¹⁴—‘from relaxation of the mucous glands,’¹⁵—whereby the

* It will be hereafter shown that these are an important cause of phthisis.

12—Laennec. 13—Badham. 14—Fordyce, Hastings.

15—Parr.

ingress of pure air is obstructed, and also the egress of carbonic acid gas, which acts as a *sedative* poison to the bronchia, and being resorbed into the blood it increases the debility of the whole system ; thus deficient excrement action of the air-tubes is a cause of mucous congestion in them. It is an old doctrine that these morbid secretions in the lungs happen from ‘bad blood being returned from the liver;’¹⁶ which notion is confirmed by the observations of Abernethy and Dr. W. Philip, and by the experiment of injecting mercury into the crural veins, which was eliminated into the bronchia and enveloped by tuberculous matter ! The morbid humors also excite a spasmodic condition of the bronchia by being a specific stimulus to their nerves.

(*b*)—Other causes are in the *blood-vessels* of the lungs ; the momentum of the blood being augmented, or its return through the veins impeded ; e.g. the vena azygos is a means of commerce betwixt the cava superior and inferior, or the bronchial and renal-lumbar veins ; if there is greater momentum of the blood returning through the *intercostal* veins to the vena azygos, the blood from the *bronchial* veins will be impeded, congestion must then happen in the lungs,—hence the relation of dyspnœa and cough with disease in the walls of the chest ; if again more blood be determined from the abdominal veins to the vena azygos a similar obstacle will affect the bronchial vessels, and the con-

verse; hence the relation of abdominal and pulmonary disorder, and the great importance of diuretics in these affections. Debility of the vascular texture may be a cause of cougestion of blood in the lungs.

Air, serum, or tubercles in the cellular texture of the lungs, *compressing* the bronchia will cause dyspnœa; 18 Mr. White has well explained '*Broken wind*,' from a concurrence of many of the causes here enumerated; a morbid state of the mucous membrane, debility of the diaphragm, and air beneath the pleura making the lung like an inflated bladder. Ruysch also has given plates of an emphysematous state of the lung.

Under the present symptom it may be remarked that it is important to observe the state of the *chest* in phthisis; Pouteau long ago remarked that the depression of the side affected is more dangerous than its projection;—Laennec has shown that the former is from chronic pleurisy, which is a very serious malady, and the latter may be from innocuous dropsy in the pleura.

LARYNGEAL AFFECTIONS—CHANGE IN THE VOICE— PECTORILOQUY.

Hippocrates has noted laryngeal phthisis—'hoarseness and salt viscid sputa, and pains in the neck, with wasting;' (cough not invariably attendant.) Haller has a case (in his *opusc. pathol.* p. 19.) of hoarseness from an

ulcer in the epiglottis;' which seems to have been an affection not then understood. Huxham remarks that 'raucedo with aphthæ is a bad symptom in phthisis; its cause is an ulcer in the throat.'—The cough is not always present, and there is little fever at first;—in the primary affection dysphagia and dyspnœa are combined.' ¹

Dr. Abercrombie remarks that 'ulceration in the larynx sometimes excites vomiting;'—it was dreadfully severe in the case of Lukey. In some of the cases in his paper on 'diseases resembling consumption,' there was a violent cough; but in case LIII. form IV. it was very mild. Huskiness of the voice and hoarseness in the *primary* laryngeal affection precedes the wasting and hectic; whereas in the *secondary* these consumptive symptoms precede the change of the voice. These are disorders which it is very important to distinguish. An eminent physician once excited needless despondency by mistaking the former for the latter, and pronouncing a patient who had a sanable disorder to be in hopeless consumption! In the primary ulceration the morbid action is similar to that in the fourth form of phthisis, in the secondary it is like the scrofulous ulceration in the intestines in colliquative diarrhœa.

Andral (Anat. pathol. t. II. p. 472) states, 'that laryngeal phthisis is, for the most part, a *pulmonary*

affection attended by a morbid state of the larynx, the symptoms of which predominate and disguise the former; and that *this* is the cause of the phthisical symptoms. My own dissections, however, and the observations of competent physicians concur in establishing the existence of *simple* primary ulceration in the larynx. The question is important; for I have seen, and my relative Sir Richard Blackmore observed, ‘purulent matter from the larynx while the lungs were uninfected; which imposed on undistinguishing observers, and made them conclude that the patient was in consumption.’

Bayle found the larynx diseased in 17 of 100 cases. Louis in 102 cases found ulcers in the epiglottis in 18, and in the larynx in 23 cases,—ulceration in this part is often overlooked. ‘Its mucous membrane is of acute sensibility, and *morbid* mucus in it is a source of dreadful irritation; that of the trachea is less sensible, and may be scratched in the horse without apparent suffering.’²

In Morgagni, p. 131, lib. ii. de morb. thoracis, ep. xv. s. 13, is a case long asthmatic, the voice unimpaired; death in a fit of suffocation. The larynx was ulcered. He also describes other cases of purulent sputa, cough, sense of erosion in the larynx, dyspnœa, unimpaired voice, which falsely resembled exulceration of the lungs. Raulin observed, that ‘ulceration in the larynx

alone was fatal.' Dr. Baillie says, that 'ulcers here are not unfrequent.'

The laryngeal affection is very important in the *prognosis*; for it not infrequently happens that a case of phthisis is tranquil and indolent until a slight change in the voice, or a sense of uneasiness at the throat, shows that inflammation or ulceration has attacked the larynx, when its progress to dissolution becomes rapid and uncontrollable.

The voice of the consumptive is characteristic; a change in it will indicate a disposition to the disease before other serious symptoms. It is shrill, or raucous, or grave and unresonant, or entirely lost. Sennert and Verheyen regarded a *dry* state of the mucous membrane of the air-tube as connected with these changes in the voice, but they may be referred to *three* conditions,—a tumefaction of the membrane from inflammation, or an organic stricture of the part, or a nervous disorder in the mode of spasm or palsy. In a certain case of the cancerous-tuberculous disorganisation of the lungs and pleura the *sepulchral* tone of the voice was very remarkable.

The stetosopic varieties in the voice are,—a *thrilling* in hardened lung, or crude tubercle;—a metallic tone from a cavity lined by a hard membrane;—*agophony*, a thrilling resonance, from pleuritic adhesion, or serum in the chest;—a metallic *tingling* which shows a per-

forate lung, and air in the chest. Pectoriloquy intermits if mucus fills the air tubes. 3—‘It is heard with a *gurgling* sound where an abscess is emptied, and is complete in a few hours, where yellow purulent sputa are copious from its first appearance.’ 4

Dr. Hastings remarks that ‘there is excavation of the lung without phthisis, and tuberculous phthisis without excavations; that therefore pectoriloquy is not a pathognomonic sign of phthisis.’ It is true that persons in incipient consumption are cut off by inflammation and dropsy before the softening of tubercles,—e. g. case i. form i.—But it may be doubted whether *all* the phthisical symptoms, in a complete form, do ever exist in tuberculous phthisis while the tubercles are in a hard state. The excavation may be so small as not to convey the sound of the voice to an unpractised ear. There is never pectoriloquy without a phthisical state of the lung; and although the morbid action be so tranquil as not to maintain any serious symptoms, the subject is prone to experience a revival of disease on exposure to the exciting causes of phthisis. In his best condition, therefore, with a cavernous lung, it may be truly affirmed that he is consumptive, and holds a very precarious tenure of life.

3—Martinet.

4—Laennec.

HECTIC.—*First, the Phenomena.*—‘An essential character of hectic is a rapid small weak pulse, *wiry*, if inflammation in the constitution,—flushings, sweats, and diarrhœa.’¹ The diarrhœa is properly a part of hectic only when it consists in a serous transudation from the intestines, analogous to the perspirations, and not when it is the effect of an inflamed or ulcerous state of their mucous membrane. High hectic may exist without aphthæ or diarrhœa. Rigor, heat, and perspiration, make up the hectic paryoxysm: the combination of these symptoms is very diversified in different cases.

The chills are from morbid sensibility of the skin, for the heat of the blood is not reduced to its natural standard.’² ‘Shiverings exist with actual increase of warmth.’³ Rigor occurred in five-sixth of the sick reported by Louis. ‘The more violent the rigor, the worse the succeeding fever.’⁴ The rigor is a nervous symptom, and sometimes so severe as to be very like an *ague*; especially where the lung is *gangrenous*. The chills are often severe shortly after meals, from the new sensation excited in the diseased part during digestion, which is diffused sympathetically over the nervous system.

‘The temperature by the thermometer in all fevers is a better criterion of the severity of the disease, than

1—Dr. T. Young. 2—Ditto. 3—Edin. Professors, 1794.

4—Huxham.

the frequency of the pulse; it may precede this for some days. In some advanced cases of consumption the heat under the tongue was only 97° . A full meal always increases the fever. The color in the face has an abrupt termination and a brighter tint.⁶ The excitement of the fever is highly pleasurable to some patients, and seems to be connected with the singular exhilaration of the spirits which characterises this disorder.

‘Sweats from the chest are bad;’ all partial sweats are so. Louis found them in nine-tenths of his patients; ‘they were co-incident with diarrhœa; they show that a function may be long disordered, and the structure of an organ offer no perceptible lesion.’

‘It is requisite to discern the symptomatic fever in chronic peripneumony’ (which is sanable) from hectic.’⁷ The diagnosis of this from the slow asthenic remittent fever in chronic inflammation of the mucous membrane of the lungs and digestive organs is difficult; Hoffman has admirably portrayed them both;—‘In hectic some constant heat, a quick weak hard pulse, which increases after meals, and in the evenings; skin and tongue dry, cheeks red, urine high coloured, with a sediment, and on its top a bluish pellicle, no refreshing sleep; the whole body weak, flaccid, wasting. In the slow fever, the heat gentle, sweats in sleep, after it in the morning

6—Dr. T. Young. 7—Fordyce.

the pulse is natural; there is not that loss of appetite and of strength, not the same dryness of the body, and appearance in the urine as in hectic.'—' Darting pains and inflammatory fever intervene at the end of hectic,'s ' Why,' asks Dr. W. Philip, 'are the cheeks flushed, as the tunica adnata is pale?' The latter is from the inanition of red blood in the system, it has forsaken the capillaries; the former from the irritation in the lung affecting the facial respiratory nerves.

It is not invariably true that 'hectic is incurable after diarrhœa and dropsy have supervened?'¹⁰—' There is a sudden and vehement hectic which may abate, then recurs and is fatal. In one hectic patient out of twenty the pulse will be as quiet and regular to the last minute as in perfect health!'¹¹—Dr. Cullen has well described hectic, First Lines, parag. 858. Louis observed it in all the phthisical, at times in the first stage, i.e. before the softening of tubercles; 'in a fifth of the patients throughout its course; in three-fifths it set out in the second stage, sometimes near the fatal term; in all the instances other organs were diseased also, but its chief cause is in the changes in the *lungs*.'

Dr. Heberden remarked that, 'in hectic the patient is often harassed with pains like rheumatism, wandering or fixed, and at a distance from the primary malady.' Dr. T. Young supposed this distressing

symptom to arise from pressure on emaciated nerves; Hoffman thought that they were connected with *abscesses* in the limbs. Dr. Bright found the ‘interior of the principle arteries red where there had been much tenderness in the flesh;’ and the analogy of phlegmasia dolens renders it probable that *inflammation* of the blood-vessels is sometimes the cause of these hectic pains.

Secondly—As to the alleged CAUSES of Hectic.—‘Its exciting cause is almost always a great or incurable disease; it may occur from an abscess open to the air, the pus being acrid, and in shut abscess, and when there is no abscess; it may cease instantly on removing the local cause.’¹—And so far it is merely a sympathetic affection of the constitution from a sanable cause; many illustrations of this might be adduced from surgical practice. The pupils of the late venerated Mr. Abernethy will remember the astonishing case he used to relate in his first lecture, of a compound fracture in which the fever instantly ceased on amputation. There is a definite relation betwixt the nature and extent of the local malady and the constitutional affection; but hectic is not a necessary consequence of every organic lesion, but is the result of a certain *irritation* in the affected part.

¹—Dr. T. Young.

There are three pathological causes of hectic: 1—Irritative inflammation contiguous to the tuberculous or indurated portions of the lung where there is no suppuration; or as Dr. Fothergill expresses it, ‘the action and reaction of the solids and fluids in the lungs being more than consists with their safety.’ This is seen in the cases in Form IV. in which the momentum of the blood is augmented in proportion to the obstacle to its circulation. Broussais terms this species the hectic of *pain*; and considers it important to distinguish it from the hectic of suppurating tubercles. Dr. Home imagined that there is an alkaline acrimony of the blood, as acids are useful! Some modern physicians retain the practice while they reject the theory. It is certain that simple irritation without organic lesion will induce hectic; e. g. from lactation, venery, the abuse of mercury, and even loss of blood.

2—Hectic arises from *suppurative* inflammation—‘hectic is the constitutional disturbance when inflammation arises in the cyst of a chronic abscess, and when there is copious suppuration.’¹ ‘Imperfect hectic is from the incipient softening of scirrhus lung;’²—‘from abscess in the lung, and the absorption of pus.’³—‘Hectic never attends a simple catarrh,—it is a test of suppuration;’⁴ ‘vitiating purulency its cause.’⁵ Stoll

1—Lawrence. 2—Forbes. 3—Philip. 4—Juncker, Duncan.

5—Mead, Fothergill, Cullen.

remarked that 'a vomica excites more hectic while it remains closed than after it is open.' This is seen in the case of a common abscess; but sometimes the contrary—e. g. when a lumbar abscess has burst spontaneously. '*Resorbed* pus makes hectic, and this makes more pus.'⁶ Hippocrates observed that 'in the *suppurated* there are sweats and remittent fevers; horrors denote a tendency to suppuration.'^{*}

3—*Ulcerative* inflammation excites hectic :—'matter mixing with the blood from broken vessels,' says Dr. Fothergill. But it is by no means certain that the veins and lymphatics communicating with tuberculous excavations do absorb. The hectic may be rather from the impression made on the *nerves* of the part by the morbid actions and secretions. 'Ulceration is not always attended by hectic.'⁷

EMACIATION.—As less fibrin is formed in the lungs in phthisis the blood in the aortic system is less fit for nutrition, less nutritious matter must therefore be laid down by the secernent arterics; this is one cause of wasting;—another is the high action in the blood-vessels and the nervous system, whence absorption is more rapid; hence also the extreme debility in all chronic

6—Edin. Med. Essays, 7—Cullen.

* Dr. W. Philip asserts, in opposition to Cullen, that there are phthisical symptoms from a simple abscess, which has no communication with the air-tubes

pulmonary diseases. Hippocrates noted the latter cause, 'the vessels in the whole body collapse when their blood is by fever burnt up.' The emaciation and hectic are usually correlative. See the case of Geach. Dr. Bright observes that 'the obstructed glands and lacteals in mesenteric consumption being gorged with chyle explains the rapid emaciation.'

In some of the cases before narrated, the mucous surface of the ileum was so extensively ulcerated that little remained capable of absorption. Sometimes the wasting precedes other serious symptoms. Louis says that its 'proximate cause is in the lungs; that when there is emaciation and fever without local symptoms these organs should be suspected.' The foregoing cases will have shown that irreparable pulmonary disorganisation may subsist with little wasting; and it will hereafter be shown that this symptom may exist, in an extreme degree, in sanable cases.

THE PULSE.—'It is hard from pulmonic inflammation; venesection affords instant relief.'¹ 'It is wiry from inflammation in the constitution.'² Dr. Friend refers 'its hardness to the seat of disease in the membrane (the pleura) and the sympathy of the arteries with it,' from similarity of structure. Relaxation of the vessels and a draining of blood makes a rapid pulse; it is quick from obstructed circulation in the viscera.³ 'The

1—Morton. 2—Dr. T. Young. 3—Browne Langrish.

pulse in peripneumony is not a faithful monitor.' ⁴ 'It is more obscure on the affected side.' ⁵ 'It is soft and regular in idiopathic hydrothorax.' ⁶ 'The state of the pulse is most important in suspected phthisis; but in one hectic of twenty it is quiet and regular to the last moment, as in perfect health.' ⁷ 'It should be felt in the recumbent posture.' ⁸

The pulse is certainly fallacious in regard to the prognosis; it is very rapid in innocent cases; and it will subside while fatal disorganisation is going on in the lung. My own observation accords with Broussais, Wilson Philip, and Louis, in this particular. It is important to note that a weak and slow pulse does not contra-indicate the use of blood-letting; and when it is rapid or quick, without symptoms of pulmonic inflammation, before the suppurant stage of tubercles, the stomach is generally in a state of low inflammation.

THE BLOOD.—The relation of its state with the respiratory functions in phthisis is important. Fibrin is formed in the lungs, it has less of carbon and more of nitrogen than the chyle; in the formation of the various solids and fluids from the circulating blood carbon is evolved, and resorbed into the blood which returns in the veins; the accumulation of carbon is attended by the evolution of caloric, the capacity of the blood for it

4—Huxham. 5—Cleghorn. 6—Avenbrugger.

7—Heberden. 8—Thomas.

being diminished ; hence the relation in the nutrition and the heat of the body. If fibrin is not formed, from the disorganisation of the lungs, the blood in the whole system must have more of carbon, being more chylous than in perfect health, except when its decarbonisation is increased by the greater frequency of respiration. In some cases fibrin appears to be formed but not deposited, the blood is then firm, dark, and the proportion of coagulum large ; e. g. in the fourth form of phthisis. Dr. Reid supposed that the cause of the symptoms of phthisis was the accumulation of phlogiston, i. e. that the blood is over oxygenated ; and in the cases under the first form the blood is very florid ; but in the cancerous phthisis, in the fourth form, it seems to be under-carbonised, and its temperature is low ; as Dr. T. Young once remarked. It may be expected that an analysis of this vital fluid in consumptive cases will lead to interesting results, and be a guide to the cure. ‘The blood stagnates, and stagnation makes viscosity ;’¹ i. e. it becomes sizzly, and its elements separable ; as is seen in the case of a ligature on the arm even in a healthy person. ‘A very tough state of the blood, and very yellow, or of a pale lead color, shows great danger ; the crassamentum is globular, and as hard as flesh ;—these cases are mortal.’² Dr. Seymour regards ‘buffy blood as not showing an inflammatory origin.’ Its

appearance is not a measure of blood-letting, for it continues sizy until more is taken than is safe.’³ Dr. Currie’s blood ‘was always buffy, yet he recovered.’—The cause of this character of the blood seems to be a semi-vitalised state, a want of affinity among its constituent parts, or an increased disposition in the solid parts to coagulate; it may be termed *albuminous* blood, probably the result of imperfect nutrition, so that the albumen is not expended; it is particularly seen where the stomach is unaffected. In the scrofulous phthisis the coagulum is weak; this *uncupped* blood is the effect of imperfect chemical action in the lungs, it shews that the vital powers are oppressed or exhausted; but this is not always a rule for the disuse of bleeding.

‘The blood is decarbonised if only a tenth of the lungs performs its function completely; we inspire one tenth of the air the chest is capable of receiving; the conversion of chyle into blood may be imperfect.’⁴ This suggests an important caution in blood-letting in phthisis. ‘The lungs are emunctories of the blood.’⁵ Consumption then must have a specific influence on all the other depuratory organs which are associated in their function with the lungs, as the skin, liver and kidneys. Dr. Christison in an interesting inquiry on the blood, in the Ed. Journal, 1831, observes that if it has little coloring matter less oxygen is absorbed by the venous

3—Fordyce. 4—Dr. T. Young. 5—Heister.

blood; that its arterialisation is a chemical, not a vital process; and that a little azote is exhaled.' As then animal food increases coloring matter, and this requires more oxygen, it is of vast consequence in phthisis to use a vegetable diet, for the lungs being disorganised less oxygen can be taken up.

THE TONGUE.—Hippocrates remarked that 'if a sublivid bulla was on it, (as if a hot iron had been put into oil,) and it was rough at the first, in pleurisy, the relief of the disease was more difficult, and blood was coughed up.' 'The tongue is characteristic in peripneumony, yellow viscid mucus on it, a triangular fur at the root, or two stripes and the centre clean.' ¹ 'It is of a bright red at the edges, and the papillæ are swollen; a white fur on it when the stomach and biliary system are disordered.' ² 'In nineteen cases of softening and thinning of the stomach in phthisis the tongue was moist and not red; and when the stomach was sound it was red; its redness and dryness will aid prognosis,—it betokens death.' ³ There is sometimes an albuminous exudation on it, surrounding a clear red spot, from inflammation in its sub-mucous tissue, connected with a similar affection in the alimentary canal. It is a bad sign. A very thin diffuse whiteness amid prominent red papillæ is the first sign of impending gastritis erythematica, and will serve to direct the treatment when other signs are absent.

1—Fordyce. 2—Dr. T. Young. 3—Louis.

THE MIND.—Hope is in the phthisical, despair in the syphilitic.’¹—‘In hectic the spirits are kept up by the arterial action; even a dying physician has been deluded.’²—Hippocrates under tubercular consumption, speaks of the delirious hope of the patients or delusion as to their danger, ‘regarding all things as in former times.’ Whytt refers the ‘easy mind in phthisis, to the defect of sympathy between the lungs and the nervous system.’ The physician is placed sometimes in a most painful position from the fixed and cherished delusion of hope. I have found it impossible to correct it, until the spell has been broken by the agony of the death-stroke!

ANASARCA.—‘Asthma usually ends in dropsy; a copious spitting and a sudden dropsical swelling of the lower parts of the body have apparently saved asthmatic persons from impending death.’³—I have remarked several times in the same case a curious alternation of dyspnœa with edema of the legs. Huxham noted that the asthmatic were relieved on the legs swelling. ‘Dyspnœa after the cessation of edema pedum in the cachectic is a fatal symptom.’⁴—Dropsy of the chest, with induration of the lung, will cause anasarca by compressing the vena azygos and the thoracic duct. These affections however are not always correlative; hydrops pectoris is found without anasarca, but the

1—Parr. 2—Fordyce. 3—Heberden 4—Hoffman.

converse is rare. Dr. Hamilton, on the diseases of children p. 376, affirms that ‘dropsical, and glandular affections, aphthæ and putrid diarrhœa, after measles,’ with which pulmonary disease is generally combined,—‘are unequivocal evidences of debility, or torpor of the lymphatic system!’ A piece of pathology which should not be reiterated in the nineteenth century.

Dr. Hastings regards dropsy ‘as more frequent after chronic bronchitis than in tubercular phthisis.’ It is common where the lung is indurated, and in the tubercular phthisis of the fourth form. It is also the result of recent acute pulmonic inflammation in the consumptive, as Hippocrates had observed, and Cullen, and not merely a sign of a colliquative state of the system. C. Bell observes that the dorsal lymphatic glands communicate with the thoracic duct, in the posterior mediastinum;—if then these are indurated, or enlarged, anasarca must be the result.

INTERCURRENT INFLAMMATION in the Lungs and Pleura.—Whatever diversity of opinion may be maintained on the relation of pulmonic inflammation and phthisis as cause and effect, it is certain that the former is a frequent accompaniment, that materially affects the progress and cure of consumption. Celsus observes, ‘in pulmone delituerant tubercula quæ sunt impedimento trananti sanguini, facile *inflammantur*, et in ulcera fœda degenerant.’ Broussais indeed denies

that tubercles dispose to inflammation; but this is in face of observation and physiology.

It is a most important principle in pathology, which is too little regarded, that in the most depressed state of the system from a cachectic malady acute inflammation may spring up, and be the immediate cause of death. Louis (parag. 116) found that acute peripneumony supervened in a tenth of the phthisical, in the last degree of wasting and debility, in the latter days of life; and that pleurisy happened 19, 12, 8, and 3 days before death. When it sets out early in phthisis he says that it is often quite cured. Parag. 282. Great caution is therefore requisite in avoiding exposure to whatever causes may disturb the circulation of the blood. Tissot and Huxham remarked that inflammation around a vomica will cause a fatal suppression of the sputa. Peripneumony, says Dr. Parr, often excites suppuration in a previously indolent vomica, and thus forms phthisis.

The phthisical inflammation may be regarded, *first*, as to its *seat* in the substance of the lung, or in its serous membrane;—*secondly*, as to its distinct nature in the several forms of consumption. 1.—‘There is a variety of peripneumony where there is no pain, which is longer and severe,—the lung is very dark.’¹ There is a similar fallacy in the symptoms of this variety to that which

1—Dr. Hooper.

Professor Burns has remarked of Bronchitis in infants,—‘a *pale* face, and oppressed look, which delude into a trifling mode of cure.’ It is important not to be deceived by a low oppressed pulse.² There is a practical observation of Huxham worth remembering, that in pneumonic inflammation, pain at the bottom of the chest, with borborygmi, and a swelled belly, is relieved by clysters,—the intestines being the seat of disorder.

2.—Pleurisy is frequent in the phthisical. ‘Pleuritic adhesions are almost invariably found; in *one* only of 112 cases were they absent; they are proportionate to the degree of pulmonary disorganization. In other chronic maladies they existed in 35 of 112 cases.’³

The slight inflammation which forms false membranes is insufficient, says Bayle, to cause symptoms of pleurisy. Laennec denies that it is a *pure* inflammation; it differs from *acute* inflammation in its symptoms and morbid appearances; *duration* alone does not make the difference. ‘A slight pleurisy is detected by coughing, and fetching the breath with force.’⁴

As to the essential nature of the phthisical inflammation, Dr. W. Philip remarks that is *languid*, whereas the *sthenic* diathesis is the (ordinary) pneumonic. It is in most cases a specific variety, asthenic, malignant, rapidly ending in serous effusion, or gangrene. It is exemplified in the cases placed under the second form,

2—Dr. D. Monro. 3—Louis. 4—Baglivi.

page 55. It most nearly corresponds with the characteristics of the scrophulous inflammation, so well portrayed by Dr. J. Thomson in his lectures. Huxham has admirably described it under malignant peripneumony ;—‘the patient gets into a sort of *nervous* fever, the pulse is deceitful, and soon sinks although throbbing before. *Aliqui parum aut nil exspuunt, plures biliosa admodum sincera et perliquida, aut spumosa et minime cocta, nonnulli saniem fere subatram; anhelant maxime et summa pectoris gravitate premuntur.*’ The danger he adds is greater where there is much oppression of the breast, with little pain, than if the breast is slightly pained; blood-letting is bad; great debility, suppression of sputa, anxiety, watchings, delirium, tremors, cold sweats, ensue; and too often death is unexpected, even ‘*inter gemitus et colloquia.*’ The qualities of the blood are memorable,—‘*solutus quamvis fluidus, et diu seri tenax,*—at other times the clot is livid, plurimo fulvo subinde enatans sero; *tertia vice nigrum et summa modo cohærens.*’ In his description of the ‘malignant catarrhal fever’ also he enumerates similar symptoms,—‘black dry tongue, little sputa, delirium, panting, trembling, and a lax belly.’ Dr. Friend was in error to say that peripneumony is never without cough, as anatomy shows; in this variety the cough bears no proportion to the degree of the pulmonary diorganization.

In the cases under the Fourth Form of phthisis, page 110, the inflammation is sthenic, with intense constriction of the arterial system—the adhesive inflammation of Mr. Hunter; and in the catarrhal phthisis it is similar in kind, but of a lower character. The stethoscope is of great utility in discovering the *exact seat* and *extent* of the inflammation, which often exists in a single lung, or even in a small portion of it; it will direct to the most advantageous place for the application of remedies. Dr. Forbes asserts that it is impossible to distinguish simple chronic bronchitis from phthisis (the diagnosis of which is of great importance) but by the stethoscope.

BRAIN AFFECTIONS.—Hippocrates notices, p. 181, the connection of delirium with suppuration in the lung, if on the fourteenth day of inflammation there is no crisis; and that madness ensues from the causeless cessation of pain at the side with bilious sputa. ‘If a cessation of sputa in the tabid, a danger of delirium; but if piles bleed there is safety.’ Sydenham, Hoffman, and Huxham remarked the same thing. Cullen had seen even phrenitic delirium, which he thought to be more owing to the degree of fever than to the part affected; but ‘hectic is seldom attended by headache or delirium.’

The affection adverted to in this commentary is different from the placid delirium which precedes dissolution; this is the effect of the circulation of undecarbonised

blood in the brain,—that is from inflammatory action, sometimes indeed of an asthenic nature. Dr. Bright explains it from an imperfect supply of blood to the brain; but there seems to be a congestion of venous blood there. Dr. Parr notes that the alternation of mania with asthma is more common than is supposed. ‘Delirium with a soft pulse does not always indicate serious changes in the lungs or the brain; but pervigilium is bad.’¹ Louis observed *arachnitis* in the last days of the consumptive, and has given some interesting examples of it. He never saw apoplexy at the end of chronic maladies; this he thinks is a line of demarcation of the brain affection in phthisis from the apoplectic softening of this organ.

The encephalic disorder in consumption consists then of *two* pathological varieties; the first is coexistent with or conversional on inflammation in the lung, and is of a similar character; the second attends the gangrenous ulceration, or an advanced state of tuberculous decomposition, and is analogous to the nervous disorder seen in cases of external gangrene,—a sign of collapse of the vital powers.

Boerhaave, in his elegant lectures de morbis nervosis, i. p. 143, explains how disordered respiration affects the circulation in the head; and Sir Charles Bell in his physiology finely displays the nervous relation of the brain and respiratory organs.

1—Dr. W. Philip.

STOMACH DISORDER.—Fothergill observed the coincidence of gastritis erythematica with phthisis, which he terms the '*irritable* part of the stomach and intestines, in which much harm is done by astringents, as elixir of vitriol!'—See case p. 41. Dr. W. Philip merely remarks that 'vomiting in phthisis is bad;' he says nothing of the pathological condition of the organ whence it proceeds, but speaks of it as a mere effect of the cough, which is an error. Dr. W. Stokes has recently remarked on it as a cause of the rapid and violent course of phthisis,—'symptoms of catarrhal and gastric affection are seen where tubercles exist in the lungs and coeliac organs,—the symptoms of acute inflammation in the stomach and intestines, yet these parts uninflamed;' but an erythematic affection of the mucous coat may certainly have subsisted, although the morbid appearances have been effaced by death.

Louis 'inspected the condition of the stomach in ninety-six phthisical cases, it was sound in nineteen; yet nine of these patients had a red tongue during life, in one it was extremely red and dry; in seventy-seven, where various lesions were found, thirty-five only had a red tongue. Inappetency, pain, nausea, or bilious vomiting marked the stomach affections.' Par. 193,—
'Extreme disease in the mucous membrane of the stomach and intestines yet no pain or fever, and death was unexpected. Par. 314,—'The stomach may be seri-

ously disorganised, yet no sign of it; but in some there was exquisite tenderness, and temperate drinks seemed *iced*. Par. 340,—‘Want of appetite, without nausea vomiting and pain, does not show gastritis. This affection may be developed in the last twenty-four hours of life.’ The case of Buchanan, p. 141, is an example.

Vomiting will also occur from ulceration in the larynx or pharynx alone. See the case p. 135. From the nervous connection of the stomach and lungs by the par vagum and sympathetic, an intimate relation is established betwixt their disorders; the poisonous influence of vitiated secretions in the tuberculous lung on the pulmonic plexuses of the eight pair of nerves must affect the stomach, and will as truly induce vomiting and corruption of the food, as a violent injury on that nerve in the neck is found to do; and from the debility and irritability thereby induced the stomach is easily inflamed. And conversely, the disorder in the stomach is a potent cause of disordered breathing, and of the suppuration and ulceration of the tubercular lung.—In the first two forms of phthisis the stomach affection is generally the consequent, and in the last two it is the antecedent of the pulmonary disease. The cases before narrated show that the morbid condition of this organ is very dissimilar in the several forms of phthisis.

DISORDER IN THE INTESTINES.—Hippocrates regarded a humid belly with cough and hoarseness as a

sign of a vomica bursting; he observed a purging in a malignant pleurisy at the end of consumption,—‘the belly troubled and the discharges green and bad smelling.’ Hoffman admirably describes the hectic from inflamed and ulcerous intestines, ‘little noticed by writers, its certain diagnostic is that solid meat and a full meal occasions spasms and gripes.’ Dr. Home has some interesting cases, in his medical facts, 1759, p. 103, 165; his book shows how imperfect pathology then was.—Dr. Parr refers the diarrhœa to the *absorption* of pus, which is carried to the bowels; so low was pathology in 1809! It may happen from the pus which has been swallowed; it is not certain that it is ever absorbed by the lymphatics and blood-vessels of the lungs, for the membrane lining an ulcer, or the capsule investing a tubercle does not appear to have an absorbing surface, and there is no evidence that the healthy lung around a tubercle is absorbent. ‘Diarrhœa is not always a fatal symptom.’¹—It seems to relieve the cough and hectic.’² It does not lessen the occasion for the cough, but it diminishes the power of coughing by its exhausting effect. Dr. Duncan refers the colliquative purging to the influence of absorbed acrid matter, and the general debility which phthisis induces.’ This does promote a transudation of serous humour from the intestines, as from the skin, and it renders them so susceptible of impressions that ordinary matters become irritant.

1—Edin. Professors. 3—Parr.

Dr. T. Young improperly regards the diarrhœa only as a symptom of hectic, (analogous to the sweats ;) it is sometimes an idiopathic affection of the intestines, wherein astringents do harm. ‘Irregularity of the bowels, says Dr. Bright, a clean glossy tongue, aphthæ and diarrhœa are symptoms of mesenteric disease consequent on disease in the intestines, and proportional to it ; in chronic ulceration there is little purging.’ These symptoms exist in phthisis when the mesentery is sound. Laennec says ‘that the diarrhœa is a direct consequence of tubercles in the intestines,’ but not always certainly. Louis observed that it was not less severe when the ulcers were seated in the small guts than when they existed to a greater extent in the large ; the state of the stools is no criterion of the condition of the mucous coat of the large intestines. Parag. 143. Diarrhœa existed in some twenty days before death, in others longer.’ Parag. 219. It was so common that five only of 112 wanted it. Bayle found the intestines diseased in 67 of 100 cases ; in the half of nine-five cases there was ulceration. This may be recent, or happen just before death. Diarrhœa may be from a simple change in secretion, like sweats to the skin ; these are coincident with it. In one case there were from ten to fifteen stools a day for five months. Of forty-one cases of diarrhœa, thirty-five had ulcers in the small, and thirty-one in the large intestines ; but the latter were oftener softened and inflamed than the small. In no case was there long

diarrhœa without ulcers in the guts.' See case p. 65.—
 Dr. Mills, on the diseases of the lungs illustrated by
 dissection, gives some interesting cases of ulceration in
 the intestines being mistreated for disease in the liver,
 which hastened the fatal termination of phthisis.

AFFECTIONS OF THE LIVER, SPLEEN, AND PANCREAS.
 Morgagni observed that some 'causes of dyspnœa are
 situate in the belly, as enlarged liver, &c. which are
 ascribed to the lungs.' In this country however, since
 the Indian pathology has prevailed, an opposite error
 has been more common. See case p. 94. But hepatic
 disease is more frequent in phthisis than physicians
 once deemed.¹ See examples p. 91, 116, 118, 126.
 This is more the case in the fourth form of phthisis; in
 the scrofulous forms the peritoneum of this organ is
 tuberculous, its interior being often sound—the accom-
 paniment or sequel of disease in the intestines. Pressure
 on the chest will develope the latent affection of the
 liver, but if the lung is indurated there will be uneasi-
 ness although the liver be sound.

The sanguiferous and nervous relations of the organs
 above and below the diaphragm sufficiently explain
 their sympathy in disease: but Reisscassin has recently
 discovered that the greater part of the blood transmit-
 ted by the bronchial artery passes into the pulmonary
 vein, and not into the venam azygos as it was thought;

a beautiful mechanism to prevent the impeding of the return of the blood from the lungs by a derangement in the abdominal circulation!

The cases and dissections in the former part of this volume show that the hepatic disease which most frequently attends pulmonary consumption is not that kind which requires or admits of the active use of mercury.

DISORDER IN THE URINARY ORGANS.—These have no intimate morbid relation with the lungs but the function of the kidneys is generally deranged in phthisis, probably from the state of the blood. The kidney is an emunctory of nitrogen; of which a superfluous quantity must exist in the blood of the consumptive, from the small expenditure of it in nutrition. ‘Red urine from uric acid, Dr. T. Young thinks, is depending on the state of the cutaneous exhalants.’

DISEASE IN THE SEXUAL ORGANS.—Dr. Sims observed the catamenia natural to the last stage of phthisis. Amenorrhœa, says Dr. W. Philip, is a symptom only, and not insalutary. This is certainly opposed to general observation, and to physiology. How then should pregnancy suspend phthisis, in which more blood is determined to the uterus, the converse of phthisical amenorrhœa. ‘Cases of chlorosis with cough simulate

phthisis; but the stomach disorder and costiveness, the colorless or discolored state of the skin, the small veins, dull eyes, torpid mind, slow pulse and coldness distinguish it from consumption.* The dry cough is not distinctive as some writers regard it. Louis observed the venereal disposition to be increased at first by phthisis; and amenorrhœa was usual in its progress.

Parturition hastens the progress of phthisis as the debility it occasions favors the rise of inflammation in the chest.

A SYNOPSIS OF THE ALTERNATION, SUCCESSION, AND IRREGULARITIES *observable in the symptoms of phthisis.*

‘The emaciation and cough are sometimes slight.’¹—‘In some fatal cases the sputa are mucous to the last.’²—‘Little fever is seen in diseases highly malignant,—the morbid particles pass the blood and kill the spirits;’ i. e. they become mortal by syncope or an affection of the brain.³ This is exemplified in the second form of phthisis. ‘Phthisis is often only suspected until (i. e. not recognised before) uneasiness at the chest, frequency of pulse, hurry in respiration, and

* Drs. Robertson and Abercrombie.

1—Dr. T. Young. 2—Dr. Southey. 3—Sydenham.

great debility, prove that inflammation around the clusters of tubercles is accomplishing the destiny of the patient.’⁴ Dr. Abercrombie observes that ‘cough, purulent sputa, emaciation, and hectic, are found in affections not phthisical, some of which are sanable, others not.’ ‘Under the *mild* symptoms of a nervous cough and chronic catarrh, the softening of tubercles and the cicatrisation of the cavities have taken place!’ Tubercles soften and open in into the bronchi before perceptible disorder in the health, as in the case of a scrofulous absorbent gland without constitutional disturbance. Chronic pleurisy shall subsist, and no intense fever or pain.’⁵ The tooth-ache shall suspend all the the symptoms except emaciation, for two days.’⁶ So I have known the pain of moxa, or a severe caustic issue do. ‘The keen appetite, clean red tongue, and clear urine, alternate occasionally with a state the opposite in all respects, and return in a few days.’⁷ Inflammation in the stomach, or around tubercles in the lung, is the cause of the alternation. ‘In the last stage the fever and sputa disappear together, and the pulse will fall to 70, yet there is no chance of recovery.’⁸ ‘Madness happens after the causeless cessation of pain at the side and bilious sputa.’⁹ ‘Mania has cured phthisis, and this going off the latter has returned.’¹⁰

4—Dr. Cheyne. 5—Laennec. 6—Dr. T. Young. 7—Rollo.

8—Dr. W. Philip. 9—Hippocrates. 10—Cullen. Abercrombie.

The important topics of the present commentary might be expanded indefinitely. I can here only set forth 'some germs of thought;' and refer back to the cases. I, in conjunction with many others, have lamented the loss of many valuable lives which might (*Deo favente*) have blessed and adorned society, had not practitioners of an older school been blinded by the routine definitions of *vade-mecums*!

As the extent of this volume precludes my exhibiting the pathological causes of phthisis, I shall insert an abstract from Louis of an interesting statistical synopsis of the morbid appearances found in connection with tubercles and cavities in the lungs. (See his work, p. 174.) 'In a tenth of the cases there was recent *inflammation* of the lung or pleura, and *effusion*; *ulcers* in the *trachea*, in a third its mucous membrane only red, and sometimes soft and thick in a fifth; *ulcers* in the *larynx* in a fifth. Effusion in the pericardium in a tenth; the *heart* was often soft; the aorta red in most of the young, and altered in structure at the age of forty. The *stomach*, its mucous membrane red, studded, soft, and thick in a twelfth; in a fifth of these soft and thin; very red, soft and thickish in the same proportion; ulcered, grey, and studded in many others;—sound only in a fifth of the cases! *Ulcers*

in the small *intestines* in five-sixths, in the large a similar ratio; in a twelfth of them, its inner membrane soft as mucus;—sound only throughout in three cases! Tubercular *lymphatic glands* in a fourth of the cases. Fatty *liver* in a third; the walls of the gall-bladder at times thick and ulcered, calculi in it. The *spleen* soft, large, or small in many; tuberculous in a sixteenth of the cases. Serum in the *abdomen* (to 6 lbs.) in a fourth, and in four others some pus, and a false membrane; many cases of tuberculous peritoneum. The *brain* injected in a seventh; soft in 1:21. *Effusion* in all the serous membranes in many cases; chiefly in the lateral ventricles. The serous membranes often *inflamed* in the last days of life—chiefly the *pleura*. In many cases the disease in the stomach and intestines would alone be fatal.

The PHENOMENA attending DISSOLUTION;—its
CAUSES, or modes, SIGNS, and PERIOD.

‘The last moments of life are of great interest to the pathologist.’

Death ensues in phthisis in two modes physiologically regarded,—by *suffocation* or by *syncope*; in some cases the phenomena may be distinctly referred to one of these modes; in others they are combined. It is important to observe in which of them the individual cases are determining, in respect to the prognosis and

treatment. It is also of consequence to remember the distinction illustrated by Silvaticus,* of *insanabile* and *lethale*; a consumptive case may be the former and not the latter.

A case may be essentially insanable and mortal from Two classes of causes; *first*, from the nature, seat, constitutional origin, or condition of the essential organic malady,—and *secondly*, from various accidental affections in the lungs or in other organs. The ratio in which these pathological causes may be severally combined in any case will materially affect the question of its absolute insanability, and the period of its mortality. The prognostic value of the symptoms,—the signs of ultimate death or healing, can only be appreciated by correctly understanding the causes of dissolution.

I.—*The Phenomena and signs attending DEATH BY SUFFOCATION.*

Fits of breathlessness and a sense of spasm in the lungs and air-tubes are complained of some days before the death-stroke, the agony of dyspnœa is dreadful, the auxiliary voluntary muscles of respiration are seen in powerful action; ‘respiration is interrupted and convulsive, sighing, and motion of the nostrils;’¹ the patient craves for fresh air—the relief on opening the doors

* Controv. Medic. 1611.

¹—Dr. J. Harvey.

and windows, even in the agony of dissolution, is delightful. In this case the expectoration ceases, oppression at the lung increases, its blood-vessels are turgid, the circulation is obstructed, the respiration becomes quick, and at last slow and unequal. Hippocrates finely describes this mode of death,—the lung stuffed, is not purged upwards, but suffocated, its air-vessels choked by the *πνυσμα*, great dyspnœa, and rapid breathing *self-wards* (i. e. quick expiration) and stertor—he dies.’ (See his works p. 460, and 196.) “Strepitus of the lung and dimness of the eye show approaching death.’² The causes of this fatal suffocation are, *first*, the actual extent of the pulmonary disorganisation, whereby a vital function is necessarily suspended. The degree of the organic ravages disclosed by dissection is astonishing. Yet the essential cause of death is more in the nature of the constitution than in the degree of the local disorganisation; one person is destroyed by an extent of local disease which in others is innocuous. * The lung is hepatised, suppurate, ulcered, and perforated in some persons without immediate fatal symptoms.

Enormous ravages are sometimes healed even in a vital organ. But when sufficient sound lung remains for the decarbonisation of the blood, (and a tenth is adequate,) this vital process is often suspended by a

* See Dr. Cheyne; vast cavities in the lung harmless. 2—Home.

redundant secretion of mucus in the air-passages, or its imperfect excretion from debility, or the access of air to the pulmonic vesicles is impeded by the effusion of air, serum or blood into the substance of the lung ;—the the immediate cause of death here is the sedative influence of the black blood on the nervous system. (See Bichat.) Pneumo-thorax is a cause of death, and in the medullary tumor in the lungs suffocation happens before the phthysical symptoms. ³

The second and most important cause of suffocation is inflammation in the lung, and its immediate consequences.⁴ A low degree of inflammation may be going on with slight symptoms, the lung progressively becoming tuberculous, or hepatized; then even in a very exhausted state acute inflammation shall spring up and death rapidly ensue. ‘Death (in hæmoptoic phthisis) is not from the loss of blood, but from the inflammatory disorganising process which is caused by tubercles, of which the hæmorrhage is a symptom and means of relief.’⁵

‘Death is from the irritation of tubercles, in the course of synochus, before their suppuration; the case has then a violent and rapid course.’⁶

Bayle gives a case of rapid phthisis,—tubercles unsoftened, the affection of the bronchial membrane

3—Laennec. 4—Hippocrates, Cullen, Hoffman.

5—Drs. Cheyne and Malden. 6—Stokes.

being the chief cause of death. The fatal termination here is premature and accidental, and *often evitable*. The inflammation is sometimes fatal without extravasation of fluids, from the secondary effect of imperfect respiration on the brain and heart. Simple induration of the lungs is often fatal from incidental inflammation and effusion.

Perforation of the lung is also a cause of this fatal suffocation ; *—‘ marked by sudden violent pain, dyspnoea, and great agony ; death in 36 hours. Air, pus, and bloody serum found in the chest, from perforation, by the opening of a tuberculous cavity.’¹ Dr. W. Stokes however found life prolonged for five months after perforation ; and Hippocrates regarded it as a means of relief in abscess of the lung ; which shows that the morbid *action* is the chief cause of death.

I have almost always traced the bad effects in the system, and the starts in the progress of the pulmonary disease, to inflammation in the lung, or in the stomach. Dr. Thomas regards an abscess, burst into the chest, as *rather hopeless*.’

II.—DEATH BY SYNCOPE.—Dr. Chalmers observed ‘gradual exhaustion, the pulse gone, and extremities

* Mr. J. Bell in his Surgery, well describes the phenomena of death by suffocation, from blood effused into the chest.

1—Louis.

cold, yet when a fly settled on the face the patient would drive it away.'

'The sputa ceased, the arteries having lost the power of secretion.'¹—'The fever disappears and the pulse falls to 70.'²—In other cases extreme emaciation and copious pus-like sputa show that there is no hope.³—The degree of emaciation, debility, sweating, and diarrhœa, says Dr. Cullen, will indicate the certain fatality.

'In no disease is the fatal event so sudden, while apprehension is lulled by promising symptoms.'⁴—People die 20 days after giving birth to a fine child.—Death sets in suddenly as if at a certain point the organs instantly became incapable of performing their functions, like the muscles in fatigue.'⁵

I saw a mournful example of this in a man whom nothing could convince that his disease would be mortal; after seeming to better than usual, he sat up in bed, shaved himself, was death-stricken, and in half an hour expired.

Inflammation in the lung is fatal in this mode also;—'after the cessation of pain, a low intermitting pulse, cold sweats;⁶—in twelve hours delirium and death.' There is generally serous effusion into the bronchia in such a case, but that does not suffocate. Sometimes the patient is cheerful to the last hour, and calmly expires; the actions of disease being worn out before dissolution,

1—Dr. T. Young. 2—Dr. W. Philip. 3—Dr. Hastings.

4—Parr on Pleurisy, which also applies to some forms of Phthisis.

5—Louis. 6—Baglivi.

Hippocrates remarked that in pain of the side and chronic fever the sick die soon after seeming to be better. ‘If the sputa sink in sea-water, the hair fall, and a purging,—if the sputa have a fetid odour when cast on the fire—they die.

The causes of this mode of death are—1st, the Hectic. Hippocrates observed that the subsidence of an external abscess and the remaining of fever show that death will happen. Although in the time of the paroxysm the effect is exhilarating, so as even to be agreeable to the sick, the violence of the action is followed by a proportional exhaustion.—Fordyce noted that over-action of the sanguiferous system was as positive a cause of asthenia as extreme muscular efforts.

2nd,—The debility from various *Profluvia* has been noted by all writers.—The discharges from the skin, the bronchial membrane, and the intestines, are truly colliquative. Hæmoptysis in many of my cases was the immediate cause of death. Ulcered intestines also have been fatal in the early state of phthisis.

3rd.—The softening and thinning of the stomach has been particularly noticed by Louis as a cause of fatal inanition in phthisis. ‘Supervient maladies reveal and exasperate the chronic affections.’¹ The sudden death from diseases of the *heart* is familiar since the writers in the *Ed. Med. Essays*, in 1734.

4th.—From the sensibility and irritability of the

1—Hippocrates.

scrofulous constitution in phthisis, a slight local irritation induces fatal exhaustion of the vital powers. Death rapidly ensues from atrophy, the conversion of the chyle into blood being impeded in consequence of the pulmonary disorganisation.

Lastly,—Slow syncope may happen from the specific sedative poisonous influence of the vitiated tuberculous matter on the nervous system, either by sympathy with the bronchial nerves, or by absorption into the blood-vessels.

Some of the causes of the mortality of consumption, then, are seen to consist in the essential nature of the pulmonary disorganisation, or of the phthisical constitution; many of these are alas! ‘nulli medicabiles herba.’—Other causes however, are accidental and medicable. That these latter should so often occasion a premature death is an opprobrium either to the physician or to his *patients*. ‘They would not die so quickly,’ says Aretœus, but that they dare not retain an equal mind to the end;’ (They had not alas! the supports of the christian faith) ‘or else are delinquent in diet; and the tormenting remedies of physicians, thirst, cutting, burning, bitter medicines, make them desire death!’

The PERIOD OF DEATH, or the duration of the disease, and the extraneous circumstances affecting it.

‘The phthisical linger for twenty years.’¹ Avicenna notes a case which lived under phthisis twenty-three years. Bayle believed one to have been in phthisis forty years.

As to SEX,—in the *first* year, says Louis, more females than males died; which is explained by the greater frequency in them of a fatty liver and softened stomach; (or the greater proportion of strumous females, the peculiar form of their chest, and the rapid termination of inflammation in effusion in them, will explain it.) Five died only fifty days after the first symptoms; one on the twenty-fourth day. Most died at five months, seven months, and two years; two-tenths in the *sixth* month of the disease; four-tenths from six to twelve months; a fourth from the first to the second year; less than a fifth from the second to the twentieth year. Age has no effect on the period of death. (?) When death occurred in the first year it was in males to females as 30 : 42! The second form which is so rapid, is oftener seen in females. ‘It is more rapid in sanguine subjects.’

CLIMATE or season affects the period of Death.—A warm climate has a different effect on an incipient and an advanced case of phthisis; it certainly accelerate

the progress of tubercular lung;—in Italy such cases seldom survive more than four months! ‘They grow worse and die in the beginning of summer!’ This season is bad as it increases the hectic.¹ Many die after a hot day. In a rare atmosphere little air can enter the chest, we are then as truly deprived of the pabulum vitæ as if suffocated; the languor felt in thunder storms illustrates this fact, and the vigor felt in cold dry weather;—the barometer will show the fate of the consumptive. In a dense clear atmosphere the lungs are saturated with oxygen; the air becomes fiery in its effects, and inflammation ensues.—It is a mistaken but general opinion that consumption is accelerated in winter and retarded in summer; this is true of external scrofula,—but a tuberculous lung is not quite analogous in its essence and relations to a strumous gland.*

The burial registers of the enchanting resorts of the invalid in southern climates bear a sad testimony to the truth of this assertion; and it is to be feared that the genial qualities of the climate act only on the sanguine spirits of the invalid to make him neglect those precautions which, in his native land, might have prolonged his existence.

1—Sydenham: Huxham.

* Yet Dr. Mills has revived this exploded notion in his Commentary on lymphatic phthisis.

STATISTICS OF CONSUMPTION as to AGE, SEX,
SEASON, PLACE, and MODES OF LIFE.

In the Edinburgh Med. Surg. Journals for October, 1829, and January 1830, there are various facts and observations on the frequency and mortality of cases termed consumptive in general at different places and seasons, which may form no uninteresting supplement to the present treatise. The data there supplied will suggest to the considerate reader some important reflections.

I shall here only extract some facts ascertained by M. Louis, as his work is not yet given in English. Of 1960 patients admitted into two wards of La Charite, in Paris, 358 died; of these 127 died of phthisis, and 40 others, in whom the immediately fatal disease was not consumption, also had tubercles in the lungs. This confirms the vast amount of mortality assigned in the London bills to consumption.

On combining Bayle's cases with those of Louis, as to age, we find that from 15 to 20 years, 21 died; from 20 to 30, sixty-two; from 30 to 40, fifty-six died; or 139 below 40 years; from the age of 40 to 50, forty-four; from 50 to 60, twenty-seven; and from the age of 60 to 70, thirteen died—making eighty-four above forty years.

As the scrofulous phthisis occurs chiefly in the earlier periods of life, and the scirrho-cancerous species in a more advanced age, the above numbers will serve to shew the relative importance of scrofula, and of other modes of morbid action in consumptive cases.

In the *Edinburgh Journal*, page 449, for 'October, 1831, is an interesting paper on the relation of phthisis to the TRADES, by M. Benoiton, *Annales d'hygiène* juillet, 1831.

1—In *Gun-flint* manufacturers, the ratio of mortality before flints were made, was $1 : 33\frac{1}{4}$; half of the births lived to the eighteenth year; the mean duration of life was $24\frac{1}{4}$ years.—Since the manufacture the ratio of mortality is $1 : 22\frac{3}{4}$; *half* of the births died before the *fifth* year; the mean of life is $19\frac{1}{2}$ years! It causes phthisis from the inhalation of flint-dust. In the four parisian hospitals, of 43000 admissions of all diseases, 1554 deaths were from phthisis, or $1 : 28$. The relative mortality in *males* was as 745 : 26055, or 28-5 in a 1000; in *women*, as 809 : 169555, or 47-5 in a 1000. Louis gives the ratio of the sexes, males 70, females 92.

2—The deaths in those who inhale vegetable-dust were 21 : 1000; charcoal-porters surpass the general ratio. In those who inhale minerals, 19-5 : 1000. But *hewing-masons* seldom live to 50 years, and die of phthisis.

3—*Animal* substances, 44-5 : 1000; and in *feather-workers*, 80 : 1000. In *gilders*, 55-22 per thousand,

In washer-men and women the mortality was below the general average.

None of the violent handicraft trades disposed to phthisis, but those of cabinet-makers and gauze-makers.

The ratio was in Shoemakers . .	43:1000	} Amongst males, vastly above the ge- neral ratio 28:5 pr. 1000
..... Tailors	47:	
..... Crystal-cutters	61:	
..... Jewellers	64:	
..... Clerks	47:	

where Sedentary habits were combined with much exercise of the ^{superior} ~~lower~~ extremities.

In Females, the ratio was in Milliners	55:1000
..... Shoe-binders . .	55:5
..... Lace-workers . .	62:
..... Glovers	64:5
..... Embroiderers ...	86: .
..... Artificial flower-makers }	115:
..... Jewellers.	133:
..... Tailors.	46:

These trades are the source of the immensely greater prevalence of phthisis among females, as they include five-eighths of the total admission among the females, and only a fifth of the males !

Advertisement.

The extent of this volume, notwithstanding the compression of its matter compels me to solicit the indulgence of those who love the 'STUDY OF MEDICINE;' and adequately estimate the importance of the subject, while I attempt the completion of my design in a subsequent volume.

The chapter herein contained will be found, it is hoped, sufficiently complete in its scope to render it deserving of attention. That it is imperfect in its execution none can more impressively perceive than the Author. The second chapter on the CAUSES of consumption is ready for the press; it comprises, I. (*a*) the EXTERNAL or *remote* causes, as conditions of the atmosphere, temperature, climate, &c.—miasms from the trades; improper habits as to diet, sleep, clothing, exercise, abuse of medicines. (*b*) The INTERNAL remote causes, or antecedent conditions of the constitution, or of the lungs,—debility, plethora, scrofula, pulmonic inflammation, catarrh, influenza, measles, hæmoptysis, asthma, pertussis,—and affections of the digestive organs. II.—The PROXIMATE causes, or the morbid conditions of the lung discovered on dissection, their distinct forms, causes and signs;—the essential causality of the phthisical disorganisation, its relation to scrofula; tubercles, induration, suppuration, ulceration, gan-

grene emphysema, dropsy; organic vicia in the pleura and bronchial glands; rationale of the frequency of diseased lung; the relation of symptoms and disorganisation—the morbid appearances in the brain, heart, and abdominal organs. In the THIRD chapter the evidence of the absolute or relative sanability of the various modes of phthisical disorganisation will be examined; and cases resembling the several forms of consumption distinguished in chapter I. which ended in recovery, will be narrated.

The FOURTH chapter will comprise the general principles of treatment elucidated from the pathological parts of the treatise, with cautions on the selection of particular classes of remedies, in the various species of the disease.


Communications from any member of the profession, on the subject of the THIRD CHAPTER particularly, will be faithfully acknowledged by the Author.

THE END.

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